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IN THE

Supreme Court of the United States

OCTOBER TERM, 1974

No. 73-1380

CHEMEHUEVI TRIBE OF INDIANS, ET AL., *Petitioners*

v.

FEDERAL POWER COMMISSION, *Respondent*

No. 73-1666

ARIZONA PUBLIC SERVICE COMPANY, ET AL., *Petitioners*

v.

CHEMEHUEVI TRIBE OF INDIANS, ET AL., *Respondents*

No. 73-1667

FEDERAL POWER COMMISSION, *Petitioner*

v.

CHEMEHUEVI TRIBE OF INDIANS, ET AL., *Respondents*

Supplement to Brief Filed by Arizona Public Service Co., et al.

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ITEM 1

LEGISLATIVE HISTORY OF THE SURPLUS WATER CLAUSE OF SECTION 4(e) OF THE FEDERAL POWER ACT, 16 U.S.C. § 797(e)

Prepared by Counsel for Arizona Public Service Co., et al.*

* Mr. Ely wishes to acknowledge the contribution made to this study by his associates, Frederick H. Ritts, Robert F. Pietrowski, and members of his staff, Messrs. Robert E. Bartkus, Michael L. Michael, Lawrence E. Strickling, and Keith M. Werhan.

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I. 1888-1914

The history of the "surplus water" clause encompasses many more years than just the history of the Federal Water Power Act. Before passage of the comprehensive water power act in 1920, Congress enacted legislation, on a project-to-project basis, granting the Secretary of War authority to lease surplus water at federal dams. The earliest act where surplus water was leased was in an appropriation bill for rivers and harbors passed in 1888. Act of Aug. 11, 1888, ch. 860, 25 Stat. 400. (Perhaps the earliest mention of "surplus water" is in a deed of property on the Fox River in Wisconsin to the United States by the Green Bay and Mississippi Canal Co. between 1870 and 1872. The deed is cited but not quoted in *Kaukauna Water Power Co.* v. *The Green Bay & Mississippi Canal Co.*, 142 U.S. 254, 259 (1891).) The following provision was made concerning the Muskingum River in Ohio:

> "[T]he Secretary of War is hereby authorized and empowered to grant leases or licenses for the use of the water powers on the Muskingum River at such rate and on such conditions and for such periods of time as may seem to him just, equitable, and expedient: *Provided*, That the leases or licenses shall be limited to the use of the surplus water not required for navigation." Act of Aug. 11, 1888, ch. 860, 25 Stat. 400, 417.

Two years later, a similar provision was passed concerning the Green and Barren Rivers in Kentucky:

> "The Secretary of War is hereby authorized and empowered to grant leases or licenses for the use of the water powers on the Green and Barren Rivers at such a rate and on such conditions and for such periods of time as may seem to him just,

> equitable, and expedient; said leases not to exceed the period of twenty years: *Provided,* That the leases or licenses shall be limited to the use of the surplus water not required for navigation." Act of Sept. 19, 1890, ch. 907, 26 Stat. 426, 447.

Although not limited by the language of the statutes, the only leases made were for water power developed at the dam site. In 1911 the War Department reported it was leasing water power at seven dams on the Muskingum River, two dams on the Barren River and one dam on the Green River. 47 CONG. REC. 4008 (1911). Furthermore, the charges were based on the amount of horsepower developed at the dam. *Id.*

The phrase "not required for navigation" in reference to surplus water indicates that the water of a river could be divided into two portions—one, the amount needed to insure unimpeded navigation and two, the remainder, which would be called "surplus water."

A 1902 act authorizes leases of surplus water in the Cumberland River in Tennessee, but expressly limits them to the water power created by Lock and Dam Numbered One:

> "And the Secretary of War is hereby authorized, in his discretion, to grant leases or licenses to the highest responsible bidder for the use of the water power created by said dam . . . *Provided,* that any lease or license so granted shall be limited to the use of the surplus water not required for navigation . . . ." Act of June 13, 1902, ch. 1079, 32 Stat. 331, 358, *as amended* Act of June 28, 1902, ch. 1299, 32 Stat. 408, 409.

These three acts all involve the leasing or licensing of surplus water at a federal navigation dam after the

dam has been constructed. A second type of government dam is one constructed by a private party who, in consideration for deeding the dam and locks to the government, receives a lease of the water power. This distinction is emphasized by Senator Burton in 1913:

> "They [water power acts] are of three classes. The first class comprises dams constructed by acts of Congress where surplus water, not needed for navigation, has been leased for water-power purposes . . . . There is a second class in which it has been provided that where dams, or dams and locks, are to be constructed in the future by the Government, the water power created incidentally thereto shall be leased under the direction of the Secretary of War . . . . A third class comprises acts of Congress granting permission to lessees to construct dams in navigable streams subject to various conditions." 49 CONG. REC. 2601-03 (1913).

The Act of April 26, 1904, ch. 1605, 33 Stat. 309, granted permission to the city of Chattanooga, Tennessee, to construct a lock and dam across the Tennessee River, which would then be deeded to the United States.

Section 4 contained the following provision:

> "That in consideration of the construction of said lock and dam, free of cost to the United States . . . the United States hereby grants to the municipality, corporation, company, or persons constructing said lock and dam under the provisions of this Act such rights as it possesses to use the water power produced by said dam, and to convert the same into electric power or otherwise utilize it for a period of ninety-nine years . . . ." *Id.*

Nowhere in this act or in two similar acts passed the following year, Act of February 9, 1905, ch. 566, 33

Stat. 712, and Act of Mar. 3, 1905, ch. 1482, 33 Stat. 1117, 1132, is "surplus water" or the leasing of "surplus water" ever mentioned.

Four statutes enacted by Congress in 1906 and 1907 do contain the term "surplus water." However, the term is not used in the leasing clause, that is, there is no lease of the surplus water itself, as there was in the earlier bills. Instead the term is used to indicate the restrictions placed on the use of water by a privately built dam and power station.

The Act of March 6, 1906, ch. 517, 34 Stat. 52, authorizing the construction of dams in the Tennessee River at Muscle Shoals, Alabama, contained the following restriction:

> "*And provided further,* That said dam or dams and works shall be limited only to the use of the surplus water of the river, not required for the navigation of the Muscle Shoals Canal or the Tennessee River . . . ." *Id.*

An identical provision was included in the authorization of the North Mississippi Traction Co. to erect a dam across the Bear River in Mississippi:

> "*And provided further,* That said dam or dams and works shall be limited only to the use of the surplus water of the river, not required for the navigation of Bear River . . . ." Act of April 23, 1906, ch. 1660, 34 Stat. 130,

in the dam authorization act for the Coosa River at Lock Two, Alabama:

> "*And provided further,* That said dam or dams and works shall be limited only to the use of the surplus water of the river, not required for the navigation of the Coosa River . . . ." Act of May 9, 1906, ch. 2438, 34 Stat. 183, 184,

and in the Act of March 4, 1907, ch. 2912, 34 Stat. 1288 concerning the river at Lock Twelve:

> "*Provided further,* That said dam and appurtenant works shall be limited to the use of the surplus water only of the river not required for the navigation of the Coosa River . . . ." *Id.*

The addition of the words "of the river" does not change the meaning of the term "surplus water." The House Report on the Coosa River, Lock Twelve bill states:

> "The bill grants to the company the right to the use of the surplus water for power purposes . . . ." H.R. REP. No. 7648, 59th Cong., 2d Sess. 1 (1907). See S. REP. No. 6948, 59th Cong., 2d Sess. 1 (1907).

This is essentially the same usage of the term as was made in the early bills. Surplus water still applies only to water power developments and then only in reference to developments at the dam site. The major difference between these four acts and the three early bills is that in the latter statutes, the dams and locks had already been constructed. Surplus water, if measured at the dam site, was a readily identifiable quantity because the amount of water necessary to operate the locks was known. However, in these later situations, the federal government only reserved the right to later build a lock at the dam. The government needed to insure that there would be water available in the future for the navigation locks and therefore restricted the dam builder to the use of the surplus water for his water power generation. This clause reserved the government's right to a share of the water in the future for navigation purposes and prevented the builder from making too large an investment in his power station by basing it on utilizing the entire flow of the stream.

A 1906 bill created a commission which was to report to the Secretary of War:

> ". . . concerning the use of surplus water which shall not be needed for the purposes of navigation flowing over the dams now under construction by the United States in the Mississippi River between the cities of Saint Paul and Minneapolis, Minnesota." Act of June 25, 1906, ch. 3530, 34 Stat. 456.

The language of this bill lends further support to the definition of surplus water as being that quantity of water over and above the requirements for navigation at the site of the dam. Furthermore, although the title of the first section of the bill does not limit the scope of the inquiry, Section 2 states that the commission is to report only on the following use of surplus water:

> "Whether there will be any surplus water flowing over said dams not needed for the purposes of navigation which might be available for mechanical or commercial power." *Id.* at 457.

The committee report makes it clear that the water will be used only in a water power project:

> "This commission is directed to make a thorough investigation of the possibilities of making use of this water power for the benefit of the Government." H. R. Rep. No. 4914, 59th Cong., 1st Sess. 3 (1906).

The term "surplus water" next appeared in an appropriation act for rivers and harbors in 1909. The usage was similar to that in the first three bills:

> "And the Secretary of War is hereby authorized and empowered to grant leases or licenses for the

> *use of the water power created by the government dam* on the Wabash River at Mount Carmel, Illinois, at such a rate, and on such conditions, and for such periods of time, as may seem to him just, equitable, and expedient, *the said leases or licenses to be limited to the use of the surplus water* not required for navigation, and to a period not exceeding twenty years . . . ." Act of March 3, 1909, ch. 264, 35 Stat. 815, 819 (emphasis added).

Thus, for over twenty years, the meaning of the term had remained virtually unchanged.

The 62d Congress in 1911 considered a bill, S. 943, which originally was to authorize the Secretary of War to enter into a contract with the Birmingham Water, Light and Power Co. for the improvement of navigation and development of water power on the Black Warrior River in Alabama. The bill as passed omitted all the provisions relating to water power and was essentially a bill for the improvement of navigation. Act of August 22, 1911, ch. 41, 37 Stat. 32. The omitted Section 5 provided that the company:

> ". . . shall have the right to construct, maintain, own, and operate . . . electrical power stations and other structures for the development of water power for industrial and other purposes, and for converting to its own use, benefit, and profit *the power created with the surplus* water not needed for lockage, including the right to sell, lease, or otherwise dispose of said power. . . ." 47 CONG. REC. 3771 (1911) (emphasis added).

The Acting Chief of Engineers, Edward Burr, described this section of the bill as containing:

> ". . . the exclusive grant to the company of the right to use and dispose of the surplus power,

> not required for the purposes of navigation, which may be created or developed by said works." H.R. REP. No. 133, 62d Cong., 1st Sess. 3 (1911).

He equates surplus water with surplus power, and navigation with lockage. Thus, the amount of water required for navigation is the same as the quantity of water required for locks. Surplus water is determined by the measurement of water needs at the dam itself.

Senator Johnston of Alabama introduced a bill in the 2d Session of the 62d Congress entitled: "A Bill [t]o authorize the Secretary of War to lease the surplus water created by any improvement on navigable streams, and for other purposes." S. 7223, 62d Cong., 2d Sess. (1912).

The title of the bill does not restrict the scope of the bill to any particular uses of surplus water nor does it indicate any limits on the definition of "surplus water." Therefore, it might be assumed that the bill deals with "surplus water" as commonly defined and its normal uses. The language of the bill clearly indicates, first, that surplus water is to be leased for water power, and second, that the surplus water is to be utilized at the dam site:

> "[T]he Secretary of War [is] authorized in his discretion, to issue permits in the following cases:
>
> "First. When any corporation or person, being authorized by the State, desires to erect power stations upon any navigable river within the United States and connect the same with any Government dam, now or hereafter built, or under the course of construction, in aid of navigation, the Secretary of War may grant such permission, and such corporation or person . . . may generate and use the power therefrom." *Id.*

The corporation or person would have to pay a charge to the government:

> ". . . which must be governed by the amount of horsepower that can be developed and marketed at the particular dam or dams . . . ." *Id.*

The bill was referred to committee and no floor action was ever taken on it. But it is useful in indicating that the common historical usage of the term "surplus water" was only in relation to water power and only in reference to power developed at the dam site.

II. 1914-1915 (63d Congress)

In 1914 Congress for the first time considered legislation with the purpose of regulating water power development in a general fashion. In the Sixty-third Congress, Second Session, Congressman Adamson introduced H.R. 16053 and Congressman Ferris introduced H.R. 16673. The Adamson bill provided for the control of water power on navigable streams and the Ferris bill pertained to water power development on public lands. See 51 CONG. REC. 12676 (1914) (remarks of Congressman Kelly). See also *id.* at 11403, wherein Congressman Underwood remarked: "[The Adamson] bill is limited in its terms to the navigable waters of the United States, and does not affect . . . the public lands . . . .The boundary of this bill, to begin with and to end with, is the navigable streams of the United States." The general purpose of the Ferris bill, H.R. 16673, was "to reserve in perpetuity to the people of the United States in fee in all public lands available for hydroelectric purposes and to provide a practical system for leasing such lands . . . ." H.R. REP. No. 842, 63d Cong., 2d Sess. 1 (1914). The leasing authority in the Ferris bill was granted to the Secretary of the In-

terior in Section 1 and included "constructing, maintaining, and operating dams, water conduits, reservoirs, power houses, transmission lines, and other works necessary or convenient to the development, generation, transmission, and utilization of hydroelectric power. . . ." *Id.* at 2. The bill, however, as was typical of public lands legislation, did not include "surplus water" language and is not helpful in analyzing the clause in Section 4(e) of the Federal Water Power Act of 1920.

Whether the primary purpose of the Adamson bill, H.R. 16053, was to promote navigation or the development of water power upon navigable waters was a matter of some controversy. The Committee Report on H.R. 16053 stated, "we conceive the prime consideration of the Government to be the promotion of navigation. . . ." H.R. REP. No. 592, 63d Cong., 2d Sess.; 51 CONG. REC. 11068, 11069 (1914). Congressman Adamson insisted during the debate that:

> " . . . this bill is a navigation bill. A great many people talk about it as a water-power bill, and the most that is said about it treats it as a water-power bill.
>
> "This bill is limited strictly to the navigable streams of the United States, and its paramount purpose is to develop and maintain navigation in those navigable streams." *Id.* at 11417.

See also *id.* at 11429, wherein Congressman Adamson further stressed that "this is a navigation bill and not a water-power bill." Despite Mr. Adamson's insistence, many congressmen remained unconvinced and viewed navigation as the jurisdictional peg upon which Congress was to assert control over water power development. Thus, Congressman Lenroot declared that H.R. 16053 "both in its present form and with the amendments proposed, is a water-power bill in fact, although

navigation is the basis of our jurisdiction." *Id.* at 12328. He further stated that:

> "... while it is clear that the paramount purpose of the bill before us is to aid water-power companies and not navigation, I would not condemn it for that reason. On the contrary, the development of water powers upon many of our streams is far more important than the development of navigation; and while our jurisdiction rests upon the right to control navigation, sometimes navigation itself should be considered as a minor and incidental matter as compared with the great public benefit flowing from the proper development of our water powers.
>
> "So, . . . this bill ought to be discussed as a water-power bill, for that is what it is, and I propose to discuss it as such." *Id.* at 12329.

Congressman Lieb sided with Mr. Lenroot, declaring:

> "I do not believe that this bill will 'first and primarily, promote navigation.' I am firmly convinced that that very desirable result will be subordinated, and that the first and primary effort will be to promote water power for private gain." *Id.* at 13030.

House consideration of the bill supported the Lenroot view, for debate centered on water power development. This controversy supports the notion that the Sixty-third Congress was concerned only with regulating one aspect of power development—water power.

Section 14 of the Adamson bill contained a provision dealing with surplus water, which, as introduced and reported to the House floor read:

> "That the Secretary of War, upon the advice and with the approval of the Chief of Engineers,

may lease to any applicant having complied with the laws of the State in which the dam is constructed or to be constructed by the United States, *the right to develop power from the surplus water over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant,* and owned by the United States, and on such terms as may be deemed by the Secretary of War, and Chief of Engineers for the best interests of the United States, and in awarding such lease preference shall be given to the applicant whose plans are deemed by any action of Congress or by the Secretary of War and Chief of Engineers to be best adapted to conserve and utilize in the public interest the navigation and water power resources of the region, and all such leases and parties thereto and the terms and conditions thereof shall be reported annually to Congress." *Id.* at 11415 (emphasis added).

The report of the House Committee on Interstate and Foreign Commerce stated that:

"Section 14 is a new section authorizing the Secretary of War, with the approval of the Chief of Engineers, to lease to any applicant who has complied with the laws of the State in which the dam may be located any surplus power developed by a dam that is constructed or owned by the United States for the purposes of navigation. In making these leases preference shall be given to the applicant whose plan is approved by any act of Congress or by the Secretary of War and Chief of Engineers as best adapted to the interest of navigation or to conserve the water-power resources of the region. All such leases and the parties thereto and the terms and conditions thereof shall be reported annually to Congress." *Id.* at 11070.

Further, the report stated:

> "Yielding to the pressure from many directions we have included in the present bill authority for the Secretary of War to accommodate communities and derive some revenue for the Government from projects constructed wholly at the expense of the Government by leasing on satisfactory terms, with proper safeguards, the surplus water not needed for navigation at such projects. For the same reason we have also included a provision permitting the use of public lands for dam projects on terms to be prescribed by the Secretary of War where the structure proposed is to be in a navigable stream, for be it remembered that this bill deals only with portions of streams which are only theoretically navigable, but which could be made navigable, as we believe, under the operation of the legislation proposed." *Id.* at 11069.

Remarks made by congressmen during the general House debate on H.R. 16053 pertaining to Section 14 in general, and the surplus water clause in particular, support the view that only plants which used surplus water to produce water power were reached. Congressman Mann states that Section 14 "provides for leasing surplus water power owned by the United States." *Id.* at 11402. Mr. Mann further elaborates:

> "Section 14 provides that the Secretary of War shall lease to any applicant the right to develop power from the surplus water over and above that required for navigation at any navigation dam now or hereafter constructed.
>
> "We have many navigation dams in the United States. At many of them there is surplus water which may be used for the development of water power, and we authorize the Secretary of War to lease that surplus water power and to make charges for it." *Id.* at 11403.

Finally, Congressman Mann interprets the section as conveying "by lease the use of surplus water power at dams which we have on navigable streams. That is the purpose of it." *Id.* at 11404. In decrying what he perceived to be defects in the Adamson bill, Congressman Lenroot stated:

> "Section 14 of the bill permits the Secretary of War to lease the surplus water power created by any Government dam. No restrictions are placed upon the Secretary; the lease may be for 99 years or 999 years; and not only that, but when Government dams are being constructed the Secretary of War, without consulting Congress, may take in as a partner with the United States in the undertaking a water-power company, and agree with it as to what its share of the partnership contribution shall be. He is required to report to Congress his action after he has acted, but not before." *Id.* at 12330.

Opposition by conservationists in the House brought about a remodeling of H.R. 16053, which was presented to the House on July 20, 1914. *Id.* at 12406-07. Section 14 was changed so as to remedy the defect pointed to by Congressman Lenroot above. The surplus water clause, however, remained unchanged. The revised Section 14 read as follows:

> "That the Secretary of War, upon the advice and with the approval of the Chief of Engineers, may lease to any applicant having complied with the laws of the State in which the dam is constructed or to be constructed by the United States, *the right to develop power from the surplus water over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant*, and owned by the United States, and on such terms as may be deemed by the Secretary of War and Chief

> of Engineers for the best interests of the United States, and in awarding such lease preference shall be given to the applicant whose plans are deemed by any action of Congress or by the Secretary of War and Chief of Engineers to be best adapted to conserve and utilize in the public interest the navigation and water-power resources of the region: [*Provided*, That no lease shall be made to any private corporation or applicant operating for private profit for a longer term than 50 years, and that the provisions of this act, so far as applicable, shall be made a part of the terms and conditions of any such lease], and all such leases and the parties thereof and the terms and conditions thereof shall be reported annually to Congress." *Id.* at 12407 (emphasis added).

General debate on the revised H.R. 16053 indicates that Section 14 and the surplus water clause were viewed by congressmen as reaching no further than water power plants. Prior to offering his own bill, H.R. 17854, as a substitute to the Adamson bill, Congressman Smith discussed what he perceived as the defects of H.R. 16053. Relevant to Section 14, Mr. Smith states:

> "A flat 50-year grant, at least—it may work out much longer—is given to every grantee of Federal water power, with no option of the Government to modify the term; while in many of our States, as well as other progressive countries, where hydroelectric development is most successful, the grant runs for periods of 20 to 40 years and present acts give the Government a leeway of option under the phrase: 'No longer than 50 years.'
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> * * * * *
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> "As stated by the authors and sponsors of the bill, it has one prime purpose and that is to attract and interest private capital. It places commer-

> cial use and purpose first and foremost. It is true that in section 14, which pertains to leases of dams built by the Government, preference is given to the lessee who is able to conserve navigation and the water-power development. But, of course, that goes without saying, because the source of all Federal control flows out of the constitutional authority of Congress over navigation." *Id.* at 12577-79.

See also Mr. Smith's reference to the applicability of H.R. 16053 to "surplus water power," *id.* at 12578.

The substitute to H.R. 16053 proposed by Mr. Smith left unchanged the concept that surplus water was water used for hydro-power generation by incorporating the same surplus water clause contained in Section 14 of the Adamson bill. Thus, Section 18 stated:

> "That the commission may lease to any applicant embraced in section 2 hereof, who has complied with the laws of the State in which the dam is constructed or to be constructed by the United States, *the right to develop power from the surplus water over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant,* and owned by the United States, and on such terms as may be deemed by the commission for the best interests of the United States, and in awarding such lease preference shall be given to the applicant whose plans are deemed by the commission best adapted to conserve the public interest as provided in section 3 hereof, and all such leases and the parties thereto and the terms and conditions thereof shall be subject to the control and regulations of the commission under the general provisions of this act." *Id.* at 12586 (emphasis added).

In comparing his bill to H.R. 16053, Congressman Smith remarked, "Section 18 governs the lease of dams built by the Government, according to the provisions of the original [Section 14 of H.R. 16053], except that in cases of contesting applications for the lease . . . navigation, public use, and industrial use take precedence over power for commercial sale." *Id.* at 12588. See also *id.* at 12584, wherein Congressman Smith stated that H.R. 16053 granted the Secretary of War power to "regulate hydroelectric projects."

Further evidence of the intended scope of the surplus water clause in Section 14 of the Adamson bill is found in the Extension of Remarks by Congressman Brown submitted on July 20, 1914, the day the "new" Adamson bill was presented to the House floor. *Id.* at 767-68 (Appendix). Congressman Brown stated that the effort behind the bill "obviously is to induce capital to build dams across navigable streams in aid of navigation for the sake of the profit to be earned in selling light and power generated from the surplus waters of the streams." *Id.* at 767. Addressing himself more specifically to Section 14, he remarked:

> "Section 14 is entirely in keeping with the rest of the bill. It permits the Secretary of War and the Chief of Engineers to lease the right to develop power from the surplus water flowing over any dam, present or future, for any length of time, with or without consideration." *Id.* at 768.

Other references made during debate regarding Section 14 indicate that it was intended merely to reach water power facilities. While considering a proposed amendment by Congressman Lindbergh to Section 6 which would bring within that section "lessees under section 14 of this act," *id.* at 13031, it was noted that Section

14 "is a provision for the leasing of the power from the reservoirs. . . ." *Id.* at 13032 (remarks of Congressman Lindbergh). In the *Christian Science Monitor* of May 6, 1914, included in the *Record* by Congressman Stevens of New Hampshire, *id.* at 13249-51, an article appeared which analyzed and compared the various "conservation legislation pending before the second session of the Sixty-third Congress." In listing the basic provisions of the Adamson bill, the *Monitor* stated that the bill provides that "[s]urplus power developed by [a] Government plant may be leased." *Id.* at 13250.

The debate surrounding the Sherley amendment to Section 2 is particularly helpful in ascertaining the intended scope of the surplus water clause in Section 14. As revised and presented to the House, Section 2 read:

> "That as a part of such approval such conditions and stipulations may be imposed as the Secretary of War and the Chief of Engineers may deem necessary to protect the present and future interests of the United States, which may include the condition that the persons constructing or maintaining such dam shall construct, maintain, and operate in connection therewith, without expense to the United States, a lock or locks, booms, sluices, or any other structure or structures which the Secretary of War and the Chief of Engineers or Congress then may deem necessary in the interests of navigation, in accordance with plans made a part of such approval; and also that in case such facilities of navigation shall not be made a part of such original approval and construction, whenever Congress shall deem such facilities necessary, the persons owning such dam shall convey to the United States, free of cost title to such land as may be required for such constructions and approaches, and shall grant to the United States free water

> power or power generated from water power for building and operating such constructions, and in such original approval, at the discretion of the Secretary of War and Chief of Engineers, may be required to maintain and operate such lock without expense to the United States [: *Provided,* That whenever Congress has heretofore provided, either directly or indirectly, through any official or department of the United States Goverment, for the construction, maintenance, and operation of a lock, free of cost to the United States, as may be deemed necessary for navigation by the Secretary of War and Chief of Engineers in any dam in navigable waters authorized by law at the date of passage of this act, in all such cases such obligation shall continue to be of full force and effect]." *Id.* at 12406.

Congressman Sherley proposed to add to the end of the section the following:

> "The Secretary of War may provide as a condition of such approval for the payment to the United States of reasonable annual charges for the benefits that accrue to the grantee by the authority given under this act, and at the end of 20 years, and every 10 years thereafter, the Secretary of War may readjust the annual charges as may then be just and reasonable." *Id.* at 12759.

This amendment spurred vigorous debate and provided a vehicle for much discussion of the nature of both the surplus water clause in Section 14 and the Supreme Court decision in *United States* v. *Chandler-Dunbar Water Power Co.,* 229 U.S. 53 (1913).

House consideration of the Sherley amendment to Section 2 of the Adamson bill demonstrates that use of the *Chandler-Dunbar* decision to support a reading of

the surplus water clause to reach non-water power uses is unjustified. Congressman Stevens of Minnesota stated:

> "All it [the *Chandler-Dunbar* decision] says is this, that the excess power not needed for navigation from a future dam constructed for navigation under authority of Congress, owned by the Government, may be sold; and that is exactly what we have been contending for." 51 CONG. REC. 12775 (1914).

Congressman Adamson made an ambiguous reference to the scope of the Section 14 leasing power stating that "we have provided in Section 14 of the bill, in strict accordance with the *Chandler-Dunbar* case, that the Secretary of War may lease any water at any Government construction not needed for navigation." *Id.* at 12893. Later in this speech, however, Mr. Adamson made it clear he was referring to "the use of the surplus water for hydroelectric purposes." *Id.* It is clear that Congressman Adamson viewed Section 14 as providing for federal government leases of water power. *Id.* at 12894. Finally, Congressman Kent stated that "[t]he *Chandler-Dunbar* decision only clinches what has long been held—that the Federal Government can go onto the rivers, put in dams, and do whatever it chooses to do with the resultant power." *Id.* at 12905.

Comments by congressmen during the general debate on the Adamson bill support the view that the bill, in its entirety, was intended to reach no further than hydro-power developments. Congressman Smith of New Hampshire pointed out at four points in one speech before the House that "the prime object of [the Adamson] bill is to enlist private capital in hydroelectric development." *Id.* at 12576. Congressman

Kelly asserted that H.R. 16053 provided "for control of water power on navigable streams. . . ." *Id.* at 12676. Mr. Kelly later attacked the bill for being contrary to "sound water-power policy" in that it was "apparently founded on the principle of encouraging private enterprises to develop water power and for the sake of that development to sacrifice the public interest." *Id.* Congressman Lenroot opposed the Adamson bill on the ground that it contained too many concessions to "water-power companies," see *id.* at 12330. Congressman Lonergan supported H.R. 16053 asserting:

> "This water-power controversy has been one of long standing. The real purpose of the present bill and the real solution of the problem is to serve the public interest; to safeguard the people against any overcharge for power; to prevent illegal combinations in restraint of trade and at the same time to permit and encourage the investment of capital in the development of water-power projects in order that the vast amount of hydroelectric power now being wasted in this country can be immediately utilized.
>
> * * * * *
>
> "It is now time to pass constructive legislation which will enable the development of these water powers on terms fair to the public and to private capital." *Id.* at 12668-69.

In addition to general remarks pertaining to the nature of the Adamson bill, several congressmen explicitly distinguish between steam power and water power when addressing themselves to the intended scope of the bill. Congressman Underwood, during general House debate on H.R. 16053, discussed the production of coke in by-product coke ovens, in which the waste gases produce steam power at approximately one-half

the cost of hydroelectric power. *Id.* at 12336. Mr. Underwood then stated, "Thus we find a competition between cheaper steam power produced by waste gases from by product coke ovens and hydroelectric power, which competition exists as an economic fact and can not be regulated by law." *Id.* This competition could be regulated, of course, if the bill pending before Congress sought to regulate steam power plants as well as water power plants. Congressman Bryan brings the distinction between steam power and water power into a sharper focus in the context of his discussion of the rate regulation provision in H.R. 16053:

> "The rate must be uniform for electric energy in a given locality, however produced. The people own a power that can produce energy, say, at $1 per unit, whatever unit you may use. The cheapest competitor to *this power* is steam, which costs, say, $3 per unit. This great difference in costs makes the water power very valuable to the public." *Id.* at 12593 (emphasis added).

Congressman Stevens of Minnesota dealt with what he perceived to be the factors affecting the price of power at some length, maintaining that the price of "this power" was determined by "the competition with others in that same region." *Id.* at 12695. The "other" type of power referred to was steam power. *Id.* Similarly, it was argued by Congressman Rainey that the charges imposed upon the water-power companies would:

> ". . . not have any effect on the consumer of electrical power. It will not increase the cost to him, because the cost of electrical power will be controlled by the cost of steam power, and because the cost of producing steam power is always higher." *Id.* at 12777.

Finally, the following statement by Congressman Lenroot demonstrates that the Congress is concerned with regulating hydro-power development, and concerned with peculiar problems of power:

> "Regulation of water power . . . is not possible to the same extent or in the same way that regulation of *other public utilities* is, because every other public utility, a street railway or an electric-light company, furnishing their power by steam, is unlimited in capacity to furnish power. They can be compelled by State or sovereign authority to furnish such utilities and such service as the market demands. That is not true with reference to a water-power company.
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> * * * * *
>
> "The usual standard of a fair rate is a reasonable return on the value of the property after paying operating expenses; but will that apply in the case of the water-power company? No; not necessarily, because there is another element there to be considered, and that is where you have . . . 50,000-horsepower users and the water-power companies can only furnish 10,000 horsepower, then the question comes, Will it not be a discrimination that we give four-fifths of the users—or allow one-fifth of the users to get their power at one-half the price that the four-fifths pay? And that must be taken into consideration.
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> * * * * *
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> "... any public-utility commission or the Secretary of War, if he has jurisdiction, will take into consideration that other element, and the result would be, in every case where there is not water power sufficient to furnish the entire market, that the cost of the water power will be determined by the cost of the steam power. . . ." *Id.* at 12769 (emphasis added).

It is clear from the above language that Congress was concerned with a measure which dealt only with the development of water power. Steam power was a known entity, but was viewed by the legislators as a factor to consider in devising a comprehensive plan for water power regulations not as a suitable subject for regulation under the Adamson bill.

It is against this background that Congressman Stevens of New Hampshire offered an amendment to H.R. 16053 which would strike out Section 14 and insert the following:

> "That the Secretary of War be, and he is hereby, authorized to enter into leases *for the use of surplus water and water power generated at dams and works constructed wholly or in part by the United States in the interest of navigation,* at such rates or such terms and conditions and for such periods of time, not to exceed 50 years, and with such provision for the periodical readjustment of rentals as may seem to him just, equitable, and expedient, subject, however, to the provisions of this act governing the authorization, maintenance, and operation of power plants, and to all regulations governing the use and disposition of the power, so far as the same may be applicable. And all such leases, the parties thereto and the terms and conditions thereof, shall be reported annually to Congress: *Provided,* That said Secretary of War in making such leases shall give preference to any municipal corporation or other public corporation not operated for private profit." *Id.* at 13256 (emphasis added).

Although the Stevens amendment changed the surplus water clause to language which closely resembled that adopted in the Federal Water Power Act of 1920, it was not intended to affect the scope of the surplus

water clause. The purpose of the amendment was to give an express preference to municipalities over private corporations in the procurement of leases and to make a strict provision for a license term of fifty years. See generally *id.* at 13256-60. The debate surrounding the Stevens amendment shows that the House did not propose to reach non-hydro-power uses with the "use of surplus water" language. Congressman Stevens of New Hampshire explained his proposed amendment thus:

> "[T]he only substantial change made in section 14 by the amendment which I have offered is that no *lease of water-power rights* to anyone shall be for a longer period than 50 years.
>
> ". . . no *lease of water-power* rights which belong to the Government should be given in perpetuity to any corporation, private or public." 51 CONG. REC. at 13257 (emphasis supplied).

Congressman Adamson, the sponsor of H.R. 16053, reacted thus to the Stevens amendment:

> "[I]f the committee [referring to the House] thinks that it is more likely to serve the purpose intended, it is all right with me. I can not see any difference." *Id.* at 13256.

Congressman Falconer, in speaking to the Stevens amendment, concerned himself with "hydroelectric matters" and "hydroelectric power." *Id.* at 13258. Finally, Congressmen Stevens of Minnesota, who claimed responsibility for the original Section 14, opposed the proposed amendment. Congressman Stevens (Minn.) did not mention an expanded surplus water clause to cover non-hydro-power uses, but rather sought

"the best use of *this incidental power. . . .*" *Id.* at 13256 (emphasis added). Congressman Stevens (Minn.) further stated:

> "Now, the result would be that if the [Stevens] amendment . . . were adopted the municipalities situated upon navigable rivers would want to do two things: they would want to have the plans of the dams changed so that navigation would no longer be the primary consideration but that *water power would be the main consideration;* and, secondly, these municipalities would endeavor to have dams constructed not so much for navigation, or ostensibly for navigation, but *in reality for water power.*
>
> "The result would be that there would be an increasing demand for these improvements, which would cost the Treasury of the United States enormous sums of money . . . for the sake of helping favored municipalities get a *chance to buy water power from water power dams* cheaper than could be secured in any other way. . . ." *Id.* (emphasis added).

The above debate demonstrates that the House, in "the first of the bills leading to the enactment of the Federal Water Power Act," App. 106, n. 165, intended the phrase "use of surplus water" to cover only hydropower uses.

The Stevens substitute to Section 14 was agreed to by the House on August 4, 1914, 51 CONG. REC. 13260 (1914), the date the Adamson bill was approved. *Id.* at 13276. The bill was sent to the Senate, whereupon it was referred to the Committee on Commerce on August 5, 1914. *Id.* at 13296. The Senate Commerce Committee reported a substitute bill, S. 6413, with a recom-

mendation to strike out all after the enacting clause of H.R. 16053 and to insert the substitute bill. S. REP. No. 846, 63d Cong., 3d Sess. 1 (1914). Section 10 of the substituted bill reported by Senator Shields contained a surplus water clause:

> "The Secretary of War may lease to any applicant having the capacity of grantee as herein defined, whom has acquired and owns the right to use the water for power and other purposes under the laws of the State in which a dam is constructed by the United States, *the right to utilize the surplus water over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant, and owned by the United States,* and on such terms as may be deemed by the Secretary of War for the best interests of the United States, and reasonable and fair to both parties, and in awarding such lease preference shall be given to the applicant whose plans are deemed by the Secretary of War to be the best adapted to conserve and utilize in the public interest the navigation and water resources of the region, and all such leases and the parties thereto and the terms and conditions thereof shall be reported annually to Congress. The charges and rents arising from such lease or leases are hereby reserved and appropriated as a special fund in the Treasury to be expended for the maintenance of said dam and the further improvement of the waterway in which the same may be situated under the direction of the Secretary of War." (Emphasis added.)

Although the phrase "utilize the surplus water" may be interpreted broadly to include non-hydro-power uses, Senator Shields' report indicates clearly that the bill is intended to deal with "[t]he question of water power development by the construction of dams across

navigable streams and the improvement of navigation in connection with water-power development. . . ." S. REP. No. 846, *supra*, at 1. The report further states:

> "The committee has endeavored to carefully safeguard the interests of the public by vesting the right of absolute control and regulation of water-power development on navigable streams and its sale and distribution into the hands of proper public authority. . . . It is believed the bill is fair and just between the public and water-power development, and adequately protects the interests of the Government; that it properly conserves an exceedingly valuable asset that should be utilized; and at the same time offers sufficient inducement for it fullest development through private interests, municipal and public-utility corporations." *Id.* at 1-2.

Thus, the Commerce Committee proposed substitute to H.R. 16053 is another example of a broadly worded surplus water clause interpreted by its drafters to include merely the use of surplus water for water power purposes. With the exception of one day's debate, 52 CONG. REC. 4955 (1915), no further action was taken on H.R. 16053 in the Sixty-third Congress.

III. 1916 (64th Congress)

The concern of the 64th Congress with comprehensive water power legislation principally took the form of two bills, S. 3331, regulating the construction of dams across navigable waters, and H. R. 408, dealing with water power development on public lands. The House bill, also referred to as the Ferris bill, did not contain any provision concerning "surplus water" or "surplus water power." The Senate bill concerning

navigable waters, known as the Shields bill (*note:* S. 1419, 65th Congress, is also called the Shields bill), contained the following section as reported from committee:

> "Sec. 10. The Secretary of War may lease to any applicant having the capacity of grantee as herein defined, and having complied with the laws of the State in which a dam is constructed or to be constructed by the United States, *the right to utilize the surplus water power over and above that required for navigation at any navigation dam now or hereafter constructed,* either with or without contribution by the applicant, and owned by the United States . . . ." 53 CONG. REC. 2198 (1916) (emphasis added).

The term "surplus water" is not expressly included in S. 1419 but it is apparent from the debates that Section 10 was intended to incorporate surplus water. Senator Shields explained the provision in the following manner:

> "Under Section 10 . . . provision is made for payment of the excess of water arising from dams built solely by the Government . . . ." (*Note:* as well as from certain other dams) *id.* at 3064.

The Senate committee report contains the following summary of Section 10:

> "The bill also provides for the lease of water power in excess of that needed for operation and navigation facilities, incidentally produced by dams heretofore or which may be hereafter constructed by the United States in the improvement of navigable rivers . . . ." S. REP. No. 89, 64th Cong., 1st Sess. 4 (1916).

The report makes it apparent that Section 10 of the bill is limited to taking advantage of water power at government dams and does not extend to any other use of federal projects.

The Senate debates also contain an amendment by Senator Husting to Section 10 which would insert the following language pertaining to surplus water:

> "Sec. 10. That the said Secretaries be, and are hereby, authorized to enter into leases for the use of surplus water and water power generated at dams constructed wholly or in part by the United States in the interests of navigation . . . ." 53 CONG. REC. 3295 (1916).

This proposed section is identical to Section 14 of H.R. 16053 as passed by the House of the previous Congress except for the clause giving preference to municipal corporations.

Senator Husting, in explaining his amendment, indicates that the split of the term "surplus water power" into "surplus water and water power" is not intended to expand the licensing authority of the Secretary of War:

> "I think that by the adoption of this amendment leases for the use of surplus waters and water power generated at Government dams will be so regulated that the people will get such benefit as they are entitled to have from the sale of *power.*" *Id.* at 3296 (1916) (emphasis added).

He clearly refers to the leasing of surplus water as a sale of power generated at a federal dam. The quotation is ambiguous in that Senator Husting is not specific as to what kind of power can be sold. He does not expressly rule out the use of water for steam power

generation. But the fact that his amendment was identical to Section 14 of H. R. 16053, which was clearly limited to water power development would indicate that the context of his amendment was the same. There is no indication anywhere in the debates that the amendment was intended to extend beyond water power projects. If his intent was to expand the jurisdiction of the "surplus water power" clause beyond a water power project located at a federal dam, he does not indicate it. The thrust of his amendment was to provide for periodical readjustment of rentals and a limitation to 50 years on the length of a lease. It was rejected by the Senate.

Later in the Senate debates, Senator Husting offered an entire bill as a substitute to the Shields bill, which was also rejected. Section 27, which replaces the "surplus water power" section of S. 3331, further indicates that "surplus water" refers only to water power developments located at a federal dam:

> "Sec. 27. That the commission is hereby authorized in its discretion, to lease, for the *development of hydraulic and hydroelectric power*, any lands of the United States at the sites of dams and works constructed wholly or in part by the United States in the interests of navigation, together with the right to use surplus water disposable by the United States and not deemed by the commission from time to time necessary for navigation." *Id.* at 3668 (emphasis added).

S. 3331 passed the Senate with Section 10 virtually unchanged. However, the House Committee on Interstate and Foreign Commerce struck out the entire bill and substituted a new bill similar to the Adamson bill

of the 63d Congress. Section 19, relating to the use of government dams, reads in part as follows:

> "Sec. 19. That the Secretary of War be, and he is hereby, authorized to enter into leases for the use of surplus water and water power generated at dams and works constructed wholly or in part by the United States in the interests of navigation . . . ." H. R. REP. No. 404, 64th Cong., 1st Sess. 6 (1916).

The section is identical to Section 14 of H.R. 16053 as passed by the House in 1914. The House report explains that Section 19 is limited to the leasing of power created at federal dams:

> "Section 19 regulates the method to be pursued by the War Department in *leasing the power* at dams erected in whole or in part by the Government itself. It contains substantially the same provisions passed by the House two years ago and continues the method existing as to Government dams for many years, under which the War Department has satisfactorily regulated and leased surplus water at a number of such structures." *Id.* at 11 (emphasis added).

The language indicates that the purpose of the "surplus water" clause is to systematize a procedure which had been carried on in a piecemeal manner for many years. It does not indicate that the procedure is to be changed in regard to what may be licensed. It appears that the House intended the clause only to apply to such uses of surplus water as had been licensed in the past, *i.e.*, water power projects at federal dams.

Committee Chairman Adamson, in introducing the substitute bill on the floor, stated that Section 19 only applied to leases of power:

> "Secretary of War may lease out power for not to exceed 50 years on such terms as may seem to

> him best, but preference must be given, other things being equal, to bid solely for municipal use by municipal corporations." 53 CONG. REC. 10448 (1916).

House debate on Section 19 occurred on July 11, 1916. *Id.* at 10838-39. It was limited to discussion over the clause giving preference to municipal corporations. There was no indication that the section was intended to cover any use of surplus water other than for water power. Mr. Smith of Minnesota, who offered the amendment to the preference clause, stated the following in regard to the purpose of Section 19:

> "The section under consideration authorizes the Secretary of War to enter into leases for the use of power generated at dams constructed wholly or in part by the United States . . . ." *Id.* at 10838.

He sees no significance in the splitting of the term "surplus water power" into "surplus water and water power." To him, and apparently to the rest of Congress, they mean the same thing. Congressman Kent of California submitted to the Congressional Record a comparative analysis of the Shields bill (S. 3331) and the House substitute. He interpreted Section 10 of S. 3331 which uses the express language "surplus water power" but not "surplus water" in the following manner:

> "The Secretary of War may lease, on such terms as he may provide, the right to develop power from surplus water at dams owned by the United States and where the cost of construction is borne by the United States or jointly with lessee." *Id.* at 1559 (Appendix) (1916).

In discussing the House substitute, Mr. Kent stated the appropriate section:

> "Provides that Secretary of War is authorized to lease surplus water and water power generated at Government dams for not to exceed 50 years upon terms provided by the Secretary with periodical readjustment of rentals." *Id.*

Mr Kent makes no comment in his comparative analysis that the two sections are not intended to apply to the same activity—the utilization of government dams for water power. Furthermore, his use of the term "surplus water" in describing a clause that did not expressly use that term is further support for the argument that "surplus water" and "surplus water power" are essentially one and the same.

While Congress in 1916 directed its attention to comprehensive water power legislation, the surplus water clause appeared in a bill involving only the use of government dams. The bill, S. 3703 and H.R. 7560, was entitled:

> "A Bill [a]uthorizing the Secretary of War to grant permission for utilization of water power at locks and dams constructed by the Government on navigable rivers of the United States."

The use of the dam was expressly limited to water power:

> ". . . That the Secretary of War . . . may lease to any applicant . . . the right to develop power from the surplus water over and above that required for navigation at any navigable [*sic*] dam now or hereafter constructed . . . ."

These bills emphasize the fact that Congress considered the utilization of government dams for water power as

a separate problem from private water power development. But they also indicate that Congress was only interested in taking advantage of the water power at these dams and not of other uses. See H.R. 7997, 65th Cong., 2d Sess., a similar bill which indicates that this interpretation was valid at least through 1918.

IV. 1918 (65th Congress)

In 1918, the Senate passed S. 1419, also known as the Shields bill, regulating the construction of dams across navigable waters. The Senate Committtee report accompanying the bill makes it clear that the purposes of the bill relate only to navigation and water power:

> "The bill provides primarily for the improvement of navigation in rivers under the jurisdiction of Congress with private capital, as distinguished from appropriations by Congress for that purpose and, secondarily, for the development and utilization of the water power of those rivers resulting from such improvement, as well as that created by dams constructed and to be constructed under the authority of Congress." S. REP. No. 179, 65th Cong., 2d Sess. 1 (1917).

Section 10 of S. 1419 concerns the use of federal dams:

> "Sec. 10. The Secretary of War may lease to any applicant having the capacity of grantee as herein defined, and having complied with the laws of the State in which a dam is constructed or to be constructed by the United States, the right to utilize the surplus water power over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant, and owned by the United States . . . ." 55 CONG. REC. 227 (1917).

The wording of the section is identical to the wording of Section 10 of S. 3331 of the 64th Congress, indicating the Senate's intent concerning the use of federal dams had not changed.

The Senate report contains the following summary of Section 10:

> "The bill also provides for the lease of water power in excess of that needed for operation and navigation facilities, incidentally produced by dams heretofore or which may be hereafter constructed by the United States in the improvement of navigable rivers . . . ." S. REP. No. 179 at 4.

This summary is identical to a summary contained in S. REP. No. 89, 64th Cong., 1st Sess. 4 (1916), concerning Section 10 of S. 3331. This adds further support to the statement that the position of the Senate concerning comprehensive water power development had not changed substantially in almost two years.

The bill was sent to the House and referred to the Committee on Water Power. The committee had been created by the House on January 11, 1918, pursuant to H.R. RES. 220, 56 CONG. REC. 844 (1918). The creation of such a committee was in response to a Wilson administration proposed substitute bill, authored primarily by O. C. Merrill, a Department of Agriculture engineer. The bill contained several major changes from previous attempts at legislation. As amended by the 65th and 66th Congresses, it became the Federal Water Power Act of 1920. The House substitute marked the first time that a comprehensive water power bill was extended to cover both navigable waters and public lands. The administration bill as proposed could not have been referred to any single House committee. *Id.* at 850. The new committee was formed to consider the

administration bill. It was composed of the six ranking members from the House Committee on Interstate and Foreign Commerce, Committee on Public Lands, and Committee on Agriculture. *Id.* at 903. Congressman Thetus Sims of Tennessee was named chairman. The other members were: Anderson, Candler (Miss.), Doremus, Esch, Ferris, Hamilton (Mich.), Haugen, Hayden, LaFollette, Lee (Ga.), Lenroot, Lever, McLaughlin (Mich.), Parker (N.J.), Raker, Stephens (Nebr.) and Taylor (Colo.). *Id.* Later, Congressman Sinnott was named to replace Mr. Lenroot when he resigned to take a Senate seat. *Id.* at 5704.

This bill called for the creation of a commission composed of the Secretaries of War, Interior, and Agriculture. In Section 4(d) of the original House substitute, the Commission was authorized and empowered:

> "To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation, State or municipality, for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation, and for the development, transmission, and utilization of power across, along, or in any of the navigable waters of the United States or upon any part of the public lands and reservations of the United States (including the Territories), *or for the purpose of utilizing the surplus water or water power over and above that required for navigation at any navigation dam now or hereafter constructed, either with or without contribution by the applicant, and owned by the United States,* which licenses shall be irrevocable, except as herein provided. . . ." H.R. REP. No.

715, 65th Cong., 2d Sess. 23 (1918) (emphasis added).

This was the language of the bill as it was introduced in the committee deliberations. There are three features worth noting. First, the authority to lease surplus water had previously always been the subject of a separate section. In this bill, it is combined with the authority to license project works in Section 4(d). (*Note:* In the present law, Section 4(d) is renumbered as Section 4(e).)

Second, the conjunction "or" is used between the terms "surplus water" and "water power" instead of "and" as in previous bills. It is not clear why this change was made but there is no historical authority for concluding that the alteration of language indicates the intent of Congress to expand its authority over uses of "surplus water."

Third, the language of the "surplus water" clause indicates that the definition had not been changed since the early bills. Surplus water is still computed by deducting that amount of water needed for navigation from the total quantity of water. The construction of the clause "over and above that required for navigation at any navigation dam" may imply that the measurement is to be made at the dam site. At the very least, it indicates that the water power project is to be located at the dam site.

The bill as reported by the Committee on Water Power to the House floor contained three amendments relating to the "surplus water" clause. First, the clause itself, Section 4(d) was amended to read:

> ". . . or for the purpose of utilizing the surplus water or water power from any navigation dam . . . ." *Id.* at 3.

The word "at" was changed to "from" and the phrases "over and above that required for navigation" and "now or hereafter constructed either with or without contribution by the applicant, and owned by the United States" were struck from the clause. However, this deletion does not indicate that the definition of surplus water had been changed. The second amendment involving "surplus water" was the addition of the definition of "navigation dam."

> "'Navigation dam' means a dam or other work, constructed or owned by the United States for the improvement of navigation, with or without contribution from others, *from which flows surplus water not needed for navigation that may be disposed of under the provisions of this Act.*" *Id.* at 2 (emphasis added).

The Committee simply shifted the language to a different section of the bill.

The third amendment was the addition of language in Section 10(e) concerning charges for the use of navigation dams:

> "(e) That the licensee shall pay to the United States reasonable annual charges in an amount to be fixed by the commission. When licenses are issued that contemplate the use of navigation dams or other structures owned by the United States, in the discretion of the commission the charges to be paid by the licensee may be readjusted at periods of not less than ten years, in a manner to be described in each license: Provided, That licenses for the development, transmission, or distribution of power by States or municipalities shall be issued and enjoyed without charge to the extent such power is used by such State or municipality for State or municipal purposes; and that licenses for the development, transmission, or distribution

> of power for domestic, mining, or irrigation use in projects of not more than fifty horsepower capacity, may be issued without charge; *but in no case shall a license be issued free of charge for the development and utilization of power created by any navigation dam and that the amount charged therefor in any license shall be as nearly as possible that ascertained by the commission to be the value of such power.*" *Id.* at 7 (emphasis added).

Section 10(e) contains the criteria for all charges made by the Commission, whether under the "project works" clause or the "surplus water" clause. It states that charges for the use of navigation dams are to be based on the value of power created. The implication is that the "surplus water" clause involves only the licensing of a different type of water power project than the "project works" clause, but it is still limited to water power. (*Note*: See debates on charges implying that they should be the same for both clauses on pp. 48-49.)

The Committee on Water Power held extensive hearings on the substitute bill in 1918 and the almost 900 pages of testimony help to explain these amendments as well as adding further support for the argument that the Federal Water Power Act was limited to water power.

Perhaps the strongest support comes from O.C. Merrill, the principal draftsman of the FWPA. In response to questioning by Congressman Raker concerning non-power uses of water, Mr. Merrill stated:

> "Mr. MERRILL . . . . This bill is concerned only, in such instances, in the development of power. When that is done the licensee may make any other use that is available.

"Mr. RAKER. But the bill simply gives him a license for power purposes?
"Mr. MERRILL. Yes."
Hearings on S. 1419 Before the House Committee on Water Power, 65th Cong., 2d Sess. 89 (1918).

Congressman Raker, from the State of California, was concerned about the fact that the bill lacks any provision for the development of irrigation:

"Mr. RAKER. Are you so sure that there ought not to be a provision in here so that arrangements could be made to handle that?
"Mr. MERRILL. I do not think it is necessary at all. I do not see how there can be any question about it whatever. *The only thing this bill is doing is to grant a license for that particular power development occupying the public lands.* There is no assumption of any control whatever over any other uses the licensee may make of that water outside of that development.
"Mr. LAFOLLETTE. Have we any jurisdiction over that water?
"Mr. MERRILL. I do not think so."
Id. at 89-90 (emphasis added).

In the same discussion, Congressman Taylor gave his view of the scope of the act:

"This is a power bill and grants rights for power. Now if a party appropiates water under the State law, or if one of those companies makes an appropriation of water by a reservoir or otherwise for irrigation, under the State law they will have that additional property right in addition to the power privilege granted here; but this bill is for the purpose, as I understand it, of giving authority to create power and utilize water for power purposes." *Id.* at 92.

A later exchange between Rep. Taylor of Colorado (a member of the Water Power Committee, later chair-

man of the Appropriations Committee) and Calvert Townley, assistant to the president of the Westinghouse Electric and Manufacturing Co., clearly indicates that the steam plants were to be excluded from the bill:

> "Mr. TAYLOR. You have spoken about the handicaps that are against water power development as compared with steam. The steam plants are not subjected—or will not be subjected, generally speaking—to the governmental regulations that this bill provides for will they?
> "Mr. TOWNLEY. No, sir.
> "Mr. TAYLOR. And they will not be subjected either to the payment of Federal royalties?
> "Mr. TOWNLEY. No, sir." *Id.* at 179.

The testimony of F. C. Stevens of the Itasca Paper Company indicates that the substitution of "from" for "at" was not intended to expand the definition of surplus water, but instead related to setting a fee for the use of surplus water. Up to this point, it has been argued that the definition of surplus water was that quantity of water not required for navigation measured at the dam site. This definition made sense as long as the leases for surplus water were restricted to those situations where there was the possibility of navigation at the dam site. This had been the situation in all previous leases for surplus water. They had generally been made for those dams previously constructed by the government at which locks were in operation. Mr. Stevens testified that if a government dam were built at the headwaters of a stream where navigation was impossible, all the water passing over the dam would be considered surplus water because none

of it was required for navigation. This fact had ramifications to the setting of a charge:

> "[I]f the bill be construed as providing as the measure of compensation the surplus water or water power above that required for navigation *at the dam*, you realize it might be construed as requiring a payment for all of the water flowing over the dam, because none of it is required for local navigation." *Id.* at 395.

Mr. Stevens said that the situation could be clarified by changing the word "at" to "from" or "generated from" or "created from." Such a change would indicate that:

> "The measure of compensation shall not be for surplus water for navigation at the dam, but the surplus water that is not needed for navigation elsewhere . . . ." *Id.* at 395.

In the context of the hearings, the amendment was not intended to expand the definition of "surplus water" to include downstream uses of water but instead to allow the amount of water needed for downstream navigation to be taken into account in determining what quantity of water at the dam would be surplus. The clause still only applies to water power projects located at the federal dam.

The House debates serve to highlight the concerns behind the movement for comprehensive water power legislation. Surrounding the debates was a strong feeling that the nation's potential water powers were going to waste. For the eight years following the 1910 amendment of the General Dam Act of June 21, 1906, all water power projects had to individually be approved by Congress, and even then the permits were revocable at will. Congressman Snell gave the follow-

ing statement on the state of the development of water power in 1918:

> "Instead of 'An act to regulate power development', [the 1910 act] should have been called 'An act to prohibit power development.' As proof of this statement I have only to call your attention to the fact that with but two small exceptions no power developments and river improvements have been made by private capital upon navigable streams since 1912. . . ." 56 CONG. REC. 9118 (1918).

This sense of wasting a resource by not using it was heightened by the fact that huge quantities of coal and oil were being consumed that would otherwise have been conserved if water power was more widely developed. Congressman La Follette emphasized this point:

> "We are burning up millions of tons of coal and other millions of gallons of oil for fuel and power purposes that could have in a large part been conserved had we only made use of the millions of horsepower energy that could have been developed from our waterfalls and rapids, which once developed are there practically in perpetuity, and thus made our coal and oil supply last many decades longer for purposes not suitable for handling by hydroelectric energy." *Id.* at 9112.

In line with this emphasis on conservation the House realized that many water power sites would not be available for private development because federal navigation projects were already located or were to be located at such locations. Use of those dams for water power development faced the same pitfalls as private dams, as Congress had to grant authority to the Secretary of War to lease the surplus water for each individual project. Thus there was a large quantity of

potential water power that was currently unavailable for development. Congressman Sims summarized the situation as follows:

> "It takes time, and it takes a long time, to build a tremendous dam. A water-power dam in some places, on some watercourses, is estimated to cost as high as $25,000,000. But there are a number of Government dams, navigation dams, dams that have been built on navigable rivers for the purpose of improving navigation, that are now unavailable simply because there is no law that permits their utilization. *Those dams, or the water power produced by Government navigation dams*, can be made available immediately. . . . " *Id.* at 8929 (emphasis added).

Another factor adding to the feeling of urgency in the House was the influence of World War I and the realization that the country's power needs had expanded enormously.

These were the main concerns behind water power legislation in 1918. In light of these considerations, it is apparent that the primary purpose of the "surplus water" clause was to maximize the amount of water power that would be available to the country. In order to have a comprehensive bill, some provision had to be made for using the power incidentally created by the federal government in the course of improving navigation. Interest in irrigation and other uses of the water were secondary after the major concerns of navigation and water power. In deciding whether to grant a license for a water power project, the FPC, by Section 10(a), was to make sure the project took into consideration these secondary uses. But these considerations arose only in the context of deciding between two applications for a private project or deciding whether to

license at all. Before allowing a stream to be dammed, the FPC wanted to make sure that the project would be the best one for that particular location in terms of navigation, water power, irrigation, flood control, and other concerns. But in the situation where the dam had already been built or was to be built by the government, the considerations of Section 10(a) would not be applicable. The size and location of the project would already be determined. The lessee of the use of the dam would have no opportunity to alter the existing project so as to increase the water available for a secondary use such as irrigation. The House debates further indicate the secondary role of Section 10(a). Congressman Mondell, expressing his concern that FPC would construe the bill as granting jurisdiction over the question of the diversion of water for irrigation, reminded his colleagues that "[t]his is a power bill." *Id.* at 9114-15. Mr. Mondell further remarked that the bill as originally drawn was "confined to the use of water for purposes of power." *Id.* at 9115. The House demonstrated this narrow view of FPC authority by accepting Congressman Taylor's amendment to Section 10 (a) which deleted the word "irrigation." *Id.* at 9901-03. Speaking in support of his proposed amendment, Mr. Taylor stated:

> "This is a water-power bill. The purpose of this legislation is to regulate the water power of the entire United States, both upon the navigable and nonnavigable streams. It is purely a water-power measure and we have no right in this bill to include and interfere with other subjects that are not necessarily involved in water-power control." *Id.* at 9901.

Congressman Little, noting that licenses for the use of navigation dams were subject to readjustment every 10

years (*Note:* This provision was changed in the conference report to an initial 20-year term and then readjustment every 10 years. 57 CONG. REC. 4632 (1916).), offered an amendment, extending this provision to cover all licenses:

> "This provision they have in the bill is so just and wise that it occurred to me that it ought to be extended to cover everything in contemplation in the bill. If it is good for navigation dams, it is good for all other licensees. If it is necessary for the navigation licensees, it must be necessary for others . . . . I do not think it would be fair, because the licensee of a navigation dam might be called on after the first 10 years to raise and raise his payments, and there might possibly be a rivalry between them, and therefore the other licenses ought to be adjusted every 10 years. . . . It will put all the licenses upon the same basis as this navigation-dam license that the bill provides for. It will put all of the licensees on an equality. If you do not insert this amendment one man, 50 years from now, may be rolling in millions while another fellow in the same business a few miles away may be making only a reasonable amount of money." 56 CONG. REC. 9912 (1918).

Mr. Little indicates that licenses for the use of government dams will be for the same business as licenses under the "project works" clause—water power development.

The implication is that the "surplus water" clause, while obviously licensing a different dam (public v. private) than under the "project works" clause, is still limited to licensing for the development of water power.

The amendment was rejected, but not because the House disagreed with his equating of the licensing of

private projects and projects at government dams. The amendment was rejected because of the creation of uncertainty as to the amount of the charges thus tending to discourage investment in private projects. Congressman Small explained the problem as follows:

> "The difference between navigation dams and a private dam is this: A navigation dam has already been constructed by the United States, so that the licensee of a Government dam is not subjected to the large expense involved in the construction of a private dam. The dam is intended primarily for navigation purposes and incidentally for water power. The gentleman will understand that one of the difficulties in the development of water power by the issuing of licenses for the construction of private dams lies in the difficulty of inducing capital to make investment in these water-power plants. If the price to be paid is to be adjusted every 10 years, would the gentleman invest his money, stock, or bonds in a water power plant? . . . The present law, which was reported by the Committee on Rivers and Harbors, requires that all Government dams which in this bill are called navigation dams shall be constructed with sloughs and all the other particular appliances of a dam useful for water power, so that when the licensee takes possession of it he has a complete dam fitted for navigation, and also fitted to be immediately *applied to the development of water power*. That great expense has been borne already." *Id.* at 9913 (emphasis added).

Mr. Small does not take issue with Mr. Little's view that the private water power developer and the licensee of a government dam are in the same business and may be in direct competition. In fact, he tends to ratify that view by referring to the navigation dam as being outfitted for water power development.

The substitute bill was passed by the House and referred to a conference committee. The conference report proposed no changes from the House substitute in the wording of Section 4(d) except for the substitution of the word "Government" for "navigation." This substitution was made throughout the bill. The committee explained the change as follows:

> "It is thought that 'Government dam' is a more comprehensive and clearer expression of what is intended than the expression 'navigation dam.' In the definition of the term 'Government dam' the words 'the improvement of navigation' are stricken out and the words 'Government purposes' are inserted. In the opinion of the conference committee this is a proper change, as it is thought to be more comprehensive." 57 CONG. REC. 4635 (1919).

The definition of "Government dam" in Section 3 then read as follows:

> " 'Government dam' means a dam or other work constructed or owned by the United States for Government purposes, with or without contribution from others, from which flows surplus water not needed for Government purposes that may be disposed of under the provisions of this act." *Id.* at 4630.

The change was a reasonable one. Until 1918, bills containing the "surplus water" clause had all been limited to the construction of dams across navigable rivers. The only federal dams affected by that legislation would have been dams built for the improvement of navigation. But by combining the navigable waters bills and the public lands bill in the House substitute, the "surplus water" clause could then extend to federal dams built on public lands across non-navigable

streams for purposes such as irrigation or flood control. The switch in language was simply a recognition of this fact.

V. 1919-20 (66th Congress)

A bill which substantially corresponded to the House substitute bill considered in the previous session, as amended in conference (H.R. 3184), was introduced in the House of Representatives. No hearings were held on H.R. 3184, since Congress merely continued the unfinished business of the Sixty-fifth Congress. See H.R. REP. No. 61, 66th Cong., 1st Sess. (1919). The only significant amendment concerning surplus water was proposed by the Senate Commerce Committee, which recommended that the clause "from which flows surplus water not needed for Government purposes that may be disposed of under the provisions of this act" be deleted from the definition of "Government dam" in Section 3. The Senate agreed to the amendment without debate. 59 CONG. REC. 1105 (1920). The Conference Committee endorsed the amendment, since it "strikes out certain words not necessary to the definition of 'Government dam'." Statement of House Conferees accompanying Conference Report on H. R. 3184, *id.* at 6383. It is clear the deletion does not imply any change in the definition of surplus water.

Congressional debate on the 1920 Act, although quite extensive, provides no clear evidence on the scope of the surplus water clause, *per se*. This is not surprising if it is remembered that the Act was the culmination of many years effort on the part of Congress. The significant provisions of the bill were generally well-known and understood by the legislators. Debate centered on

the numerous points of contention between the conservationists on the one hand, and the representatives of the water-power interests on the other. It is submitted that the intended scope of the surplus water clause as reaching only hydro-power uses was not questioned by the legislators and therefore was not the subject of debate. Had any congressman viewed the clause as embracing the licensing of steam plants, it is inconceivable that the clause would have encountered no resistance by the power interests, or would not have been applauded by the conservationists.

An amendment proposed by Senator Wadsworth to Section 4(e) may, however, be relevant in determining the intent of Congress in changing the word "at" to "from," causing the surplus water clause to read: "[F]or the purpose of utilizing the surplus water or water power *from* any Government dam. . . ." 16 U.S.C. § 797(e) (1970) (emphasis added). The Wadsworth amendment provided that the word "from" be inserted following the word "along" in Section 4(e), so as to read: "To issue licenses . . . for the purpose of constructing, operating, and maintaining . . . project works necessary or convenient for the . . . utilization of power across, along, *from* or in any of the navigable waters. . . ." 59 CONG. REC. 1482 (1920) (emphasis added). Senator Wadsworth stated that the purpose of his amendment was "obvious" since "it would seem that the word 'from' should be added, so that in the event of diversion of water to a distance from the stream, which could not be called 'along' the stream, the case would be covered." *Id.* It is therefore arguable that Congress, by replacing the word "at" with "from," did not intend to reach plants downstream from the govern-

ment dam. In light of the summary agreement to the Wadsworth amendment, it may be contended that Congress intended by its use of the word "from" in the surplus water clause, to reach plants which diverted water stored at a government dam to a distance inland from the site, rather than plants which were located downstream from the dam.

The congressional debate on the 1920 Act does, however, show that the Act was viewed by the legislators as regulating only water-power development. Congressman Bankhead hailed the bill, H.R. 3184, as a means of placing "the great latent, potential water powers of this country . . . into practical business operation for the benefit of the people and of the industries of the country. . . ." 58 CONG. REC. 2025 (1919). Congressman Anderson observed that the House was "undertaking here to pass a general bill covering water powers in navigable streams and on public lands and in the forests. . . ." *Id.* at 2133. Finally, Congressman Esch, floor manager of H.R. 3184, in the House, stated that "[t]here are many provisions in this bill giving the [federal power] commission power to grant licenses to such applicants as will best develop the water powers of the region. . . ." *Id.* at 2035.

The notion that H.R. 3184 was intended by Congress to regulate only the development of water power is reinforced by consideration of the House deliberations on several sections of the bill. House consideration of Section 4(d) of H.R. 3184 (Section 4(d) corresponds to what is now Section 4(e) of Part I of the Federal Power Act), the section which is argued to provide the FPC with jurisdiction to license steam plants, demonstrates a concern with only the issues related to water

power development. Congressman White, concerned over FPC authority granted in Section 4(d), inquired of Congressman Esch "whether [the commission] would have authority to authorize the construction of a dam which would throw out some existing and going structure up the stream?" *Id.* at 2035. Mr. Esch replied:

> "There are many provisions in this bill giving the commission power to grant licenses to such applicants as will best develop the water powers of the region, and with such power granted to the commission it might be that they would grant a license to a lower builder of a dam, even though it might entail loss to the upper owner of a dam. Of course it would be subject to the payment of damages. I doubt, however, whether the commission would exercise such power to any considerable extent." *Id.*

Later in the debate, Congressman Small offered an amendment to Section 4(d) which would delete the exception of government dams constructed prior to passage in the proviso:

> "That in case the commission shall find that any Government dam may be advantageously used by the United States for public purposes in addition to navigation, no license therefor shall be issued until two years after it shall have reported to Congress the facts and conditions relating thereto, except that this provision shall not apply to any Government dam constructed prior to the passage of this act." *Id.* at 2036.

Congressman Small was concerned with "a number of Government dams which have heretofore been con-

structed and which are not now being utilized for water power for lack of general legislation." *Id.* Congressman Anderson opposed the Small proposal, arguing:

> "In the case of the dams to be constructed in the future, the question which this particular section raises comes up at the inception of the application for the improvement. Consequently there is no particular harm done to anybody by providing that in that case there should be a period of two years elapse in order that Congress may have an opportunity to determine what it will do with respect to that dam. But in the case of a dam already constructed, the amendment of the gentleman from North Carolina simply means that there must be a delay of two years before anything can be done under the bill with respect to the power created by the Government dam, although the dam is entirely completed and ready for the installation of the power machinery. I can see no reason on earth why, under the circumstances created under this bill, where the commission has full authority over the rate charges and everything else connected with the dam, that there should be a delay of two years before you can utilize the power created by the dams already constructed." *Id.* at 2037.

Congressman Esch agreed with Mr. Anderson, noting that "[t]here are very few Government dams on which it is possible to develop power." *Id.* The Small proposal was rejected. *Id.* The House debate on Section 4(d) contains no reference to steam-power plants and, in fact, demonstrates a congressional concern only for the problems incidental to hydro-power developments.

As reported to the House floor, Section 7 applied in general terms to the "issuing [of] preliminary permits hereunder or licenses where no preliminary permits

have been issued. . . ." *See id.* at 2037. The second paragraph of Section 7 provided as follows:

> "That whenever, in the judgment of the commission, the development of any project should be undertaken by the United States itself, the commission shall not approve any application for such project by any citizen, association, corporation, State, or municipality, but shall cause to be made such examinations, surveys, reports, plans, and estimates of the cost of the project as it may deem necessary, and shall submit its findings to Congress with such recommendations as it may deem appropriate concerning the construction of such project or completion of any project upon any Government dam by the United States." *Id.*

An amendment was offered by Congressman Small to strike out this paragraph. *Id.* at 2038. Debate on the proposed amendment demonstrates that this generally worded section was interpreted by the congressmen as anticipating only Federal Power Commission jurisdiction to regulate water power development. Thus Congressman Small inquires of Congressman Esch:

> "As I interpret [the second paragraph in section 7] it reposes with the commission the right to express their judgment as to whether the development of water power upon a certain stream should be undertaken by the United States rather than issuing license to a person, corporation, and so forth?
>
> "Mr. ESCH. Yes.
>
> "Mr. SMALL. If it is their judgment that the development of water power should be undertaken by the United States, that they shall not issue a license but report to Congress?
>
> "Mr. ESCH. Yes." *Id.* at 2038.

Congressman Small then argues:

> "[I]f this body is in favor of the development of water power by the United States, or even if it is a debatable question in the committee, let the paragraph stay in; but I understand the contrary is true, and that this bill was predicated upon the theory that it would invite private capital, through the agencies of individuals and corporations and municipalities and other State agencies, to develop water power, and that it is expected that capital will respond to this invitation, and that water power will be developed. If that be true, why should Congress repose in three men the right to hold up the license for water power, all other conditions being favorable for the issuing of a license, because, forsooth, in their opinion the United States ought itself to develop the water power?" *Id.*

Mr. Small's rhetorical question was answered by Congressman Sims:

> "[T]he commission is not authorized to expend money in development. The commission may, however, when an application is made to it for a license to build a navigation project or to build a water power upon Government-owned land, if it deems it in the public interest that the Government as far as it will for the cost increase, withhold the license and recommend to Congress that the Government make the improvement." *Id.*

Following the rejection of Congressman Small's proposed amendment to the second paragraph of Section 7, *id.* at 2039, Congressman McLaughlin of Michigan offered an amendment to the first paragraph of Section 7. The first paragraph of the section provided:

> "That in issuing preliminary permits hereunder or licenses where no preliminary permit has been

> issued the commission shall give preference to applications therefor by States and municipalities, provided the plans for the same are deemed by the commission equally well adapted to conserve and utilize in the public interest the navigation and water resources of the region; and as between other applicants, the commission may give preference to the applicant the plants of which it finds and determines are best adapted to develop, conserve, and utilize in the public interest the navigation and water resources of the region." *Id.* at 2037.

Congressman McLaughlin's amendment proposed to limit the preference given states and municipalities to the case where "such power is to be used by such States or municipalities for State or municipal purposes." *Id.* at 2039. Mr. McLaughlin believed:

> "... that states and municipalities should have the authority and should be given the preference to develop water power for their own use, but I do not believe that they should be permitted to develop water power for the purpose of going into the business of selling power, to engage in commercial propositions." *Id.*

Mr. McLaughlin further stated the purpose of his amendment was:

> "... to limit States and municipalities, in the development of water power, to do so for their own uses, and that they shall not develop water power primarily for the purpose of engaging in the business of making and distributing power." *Id.*

Congressman Sims opposed the amendment, arguing:

> "The ... amendment would prevent a city or town from applying for a license and developing

> water power unless the city at the time it applied for it had need, for purely municipal purposes, for the whole amount of power to be developed." *Id.*

The amendment was rejected. *Id.* at 2040.

Section 10(e) of H.R. 3184 extended authority to the FPC to fix reasonable annual charges to be paid by all licensees. House debate on this section shows that a "licensee" was contemplated to be a water-power developer. Congressman Haugen offered an amendment to Section 10(e) which proposed to delete the language granting the FPC authority to fix these charges. *Id.* at 2136. Mr. Haugen's purpose was to insure that "consumers of the power will pay less for the use of the water power than they would under the plan suggested." *Id.* The amendment was rejected, *id.* at 2136. Congressman Little then offered an amendment to Section 10(e) which proposed to permit a readjustment by the Federal Power Commission of charges to the power companies at the end of 20 years and subsequently at the end of periods not exceeding 10 years for "all" licenses issued by the Commission. See *id.* at 2221 (remarks of Congressmen Small and Little). This proposal sparked a heated debate. Congressman Small opposed the amendment, arguing:

> "The purpose of this entire bill is to attract capital for investment in water-power development upon such conditions that shall be just to the United States. Unless both purposes are met in this bill, there will be no result, and we will be confronted by the same conditions that have existed for a long period of years. No capital will be invited and there will be no investment in water power. Members understand very well that even now we have water-power legislation, legislation which it was

> contemplated at the time it was enacted would invite capital, but it has not done so, and no water power is being developed. This bill was drafted for two purposes—one to attract capital in the development of water power under such terms as might be just to the United States . . . ." *Id.*

Congressman Small further remarked that this:

> ". . . amendment applies to every license issued for the development of water power, reposes in the commission the discretion to require an adjustment at the end of 20 years and then an adjustment at every 10-year period thereafter. Bonds are to be issued by these companies. It takes great capital in the development of water power, and those bonds, it may be assumed, will run 20 years, 30 years, perhaps 40 years, and capital will not be invested in those bonds nor in the stock of the company which is seeking a license. In other words, capital will not be invested in development of water power if the license to be issued carries any such condition as that provided in the amendment . . . and one of the features intended to be accomplished by this bill will have failed if that amendment shall be adopted." *Id.* at 2222.

Congressman Ferris maintained that the Little proposal is within the Commission's power, as provided for in other clauses of the bill:

> "[T]his commission is clothed with full power, with full authority to insert in the contract, which is a binding contract between the water-power developer and the Government, any condition they may desire. . . .
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> * * * * *
>
> "In the stage of water-power development as it is now, I think there will be many cases when the

> developer is entitled to know in the beginning, on any unconstructed water-power site, something of what is going to happen to him during the life of his franchise. He can not secure money to build it without some assurances as to what will happen clear through. The commission is given the very widest powers and they will safeguard the public and at the same time be reasonable so as to get development." *Id.*

Congressman McArthur spoke against the Little proposal and explained the adverse effect he felt the amendment would have on hydroelectric developers:

> "[I]n the development of hydroelectric power two elements are essential. First, we must have the power to develop; and second, we must have the money with which to develop it. We have in this country untold millions of hydroelectric power now going to waste, and it is a burning shame that Congress has not already passed legislation to permit the development of this power for commercial and other purposes.
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> "[T]he developers of hydroelectric energy, when they have water-power developments in view, must go on the market and compete with other business propositions in the effort to secure credit and capital. And they are not going to be able to go into the market and get their money unless they have something to show from which a reasonable re-something to show from which a reasonable return may be expected.
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>
> "I hope all of these amendments that are put on here with a view to restricting development and making it harder to raise money to develop hydroelectric energy will be voted down and that the

> committee will be sustained all through this bill, a bill almost identical to that which passed the House in the last Congress and got as far as conference in the Senate, where it was blocked." *Id.* at 2222-23.

The Little amendment was rejected by the House. *Id.* at 2223.

Amendments offered to certain other subsections of Section 10 support the view that the section, in its entirety, was intended to reach solely water power development. Congressman Mays, in offering an amendment which would provide that transmission lines constructed or operated under the act would be treated as common carriers, compared and contrasted the present bill with legislation dealing with coal.

> "In the legislation dealing with our coal resources a provision was carried that only one lease could be secured by any individual or corporation each holding a lease. . . . There is nothing in the bill, so far as I can observe, to prevent existing or future monopolies from securing all the *undeveloped power sites* yet remaining upon the public domain or along the navigable streams of the country. . . . Coal is carried on railroads acting as common carriers. It represents heat, light, and power. It may be burned at the mines and transmitted over the lines to the consumer in the form of electricity. *Water power* is heat, light, and power, minus the ashes and smoke. It serves the public in the same manner as coke and fuel oil. The railroads carrying coal, the pipe lines carrying oil, must operate as common carriers. Manifestly the same rule should apply to transmission lines doing interstate business." *Id.* at 2136-37 (emphasis added).

The Mays proposal was rejected. *Id.* at 2137. Congressman Briggs then offered an amendment which would attach a "penalty clause to section 10(h) by saying that holders shall forfeit all permits or licenses that they may have upon conviction of a violation of this provision against monopoly. . . . [and] that any such offender shall also be liable for any other penalties that may be provided by law." *Id.* at 2138 (remarks of Congressman Briggs). Mr. Briggs' amendment was grounded on the opinion that:

> "[N]o stronger penalty could be attached than a forfeiture of the license or permit held by the body seeking to create a monopoly of the water power. Through the instrumentality of licenses, which may run for 50 years, and of permits, by which they may hold preference rights or options for a term, even as long as three years, to acquire such licenses and privileges of water power, and through subsidiary corporations or by dummy persons some combinations of capital may accomplish a monopoly that never could be tolerated in this country. . . .
>
> "When the incalculable value of the water power of this country is considered, every precaution ought to be observed in order that this great asset of the people should not be appropriated by private interests for selfish ends. It is to be expected that resistance will be met in the effort to impose safeguards around anything so tremendously attractive and desirable to those seeking monopoly of the water power of the United States. . . .
>
> "It must not be forgotten that the amount of waterpower which can be utilized in this country is almost fabulous.
>
> ". . . [W]hile development of our great waterpower resources ought to be encouraged, so that

> their tremendous energy, which now runs to waste, can be harnessed and made to serve the needs of the people, it should not be done at a cost which might threaten to completely absorb the very holdings themselves." *Id.*

The Briggs proposal was rejected. *Id.* at 2139.

House debate on Section 12 of H.R. 3184 and the amendments proposed thereto provide another example of broad wording interpreted by the legislators as encompassing merely water-power facilities. Section 12, as reported to the House, provided:

> "That whatever application is filed for a project hereunder involving navigable waters of the United States, and the commission shall find upon investigation that the needs of navigation require the construction of a lock or locks or other navigation structures, and that such structures can not, consistent with a reasonable investment cost to the applicant, be provided in the manner specified in section 11, subsection (a) hereof, the commission may, before taking action upon such application, cause a report upon such project to be prepared, with estimates of cost of the power development and of the navigation structures, and shall submit such report to Congress with such recommendations as it deems appropriate concerning the participation of the United States in the cost of construction of such navigation structures." *Id.* at 2220.

Congressman Lankford offered an amendment which proposed to insert the following after the final word of the section:

> "Whenever it is made satisfactory to the commission that the needs of navigation can be provided for in a way profitable to the United States

> by the joint activity of the United States and a State or States, or municipality or municipalities, or other interested parties, and that an essential water power and a needed navigable waterway can be obtained by the performance of a contract whereby the United States makes certain improvements, provided the other interested contracting parties do the things obligated to be done, then the commission shall cause the necessary surveys to be made, the necessary data obtained, and the necessary estimates made to determine the things which can be profitably done by the United States and other contracting parties and may recommend to Congress that the United States obligate to make certain improvements in said scheme of water-power and waterway development, provided a satisfactory contract is entered into by the other contracting party to complete said development." *Id.*

In support of his proposed amendment, Mr. Lankford argued thus:

> "There are provisions in the bill for the United States to make improvements for the purpose of helping navigation and for the purpose of constructing better water power. There are provisions for municipalities to be authorized by the commission to make improvements, to develop water power, and to develop navigation. There are provisions for corporations to make these improvements. I have offered the proposed amendment, therefore, to permit the United States Government to act in connection with the States or with municipalities or with corporations in making the improvements necessary to construct better waterways and to develop better water power. . . . [A]n essential water power and a needed navigable waterway can be obtained by the performance of a contract whereby the United States makes certain improvements, provided the other inter-

> ested contracting parties do the things obligated to be done . . . ." *Id.*

Congressman Green opposed the bill, explaining:

> "The principal object of this bill is to make unnecessary for the Government to expend money in developing water power. I do not believe this Government ought at this time to enter into any further projects. . . . As for the Government helping the States to carry out this matter—to increase water power—I think we have done enough in that line." *Id.*

Finally, consideration of House debate on Section 17, which allocated fifty percent of certain "charges arising from licenses hereunder . . ." to special funds, provides further evidence that such a "license hereunder" pertains to hydro-power development. As reported to the House floor, Section 17 read:

> "That the charges arising from licenses hereunder shall be paid into the Treasury of the United States. Fifty per cent of the charges arising from licenses hereunder for the occupancy and use of national forests is hereby reserved and appropriated as a special fund in the Treasury to be expended under the direction of the Secretary of Agriculture in the survey, construction, and maintenance of roads and trails within such national forests. Fifty per cent of the charges arising from licenses hereunder for the occupancy and use of national parks is hereby reserved and appropriated as a special fund in the Treasury, to be expended under the direction of the Secretary of the Interior in the improvement and development of such parks. Fifty per cent of the charges arising from licenses hereunder for the occupancy and use of public lands, and of national monuments, and power site or other reserves outside of national

> forests shall be paid into, reserved, and appropriated as a part of the reclamation fund created by the act of Congress approved June 17, 1902, known as the reclamation act. All proceeds from any Indian reservation shall be placed to the credit of the Indians of such reservation. Fifty per cent of the charges arising from all other licenses hereunder is hereby reserved and appropriated as a special fund in the Treasury to be expended under the direction of the Secretary of War in the maintenance and operation of dams and other navigation structures owned by the United States, or in the construction, maintenance, or operation of headwater or other improvements of navigable waters of the United States." *Id.* at 2226.

Debate centered on an amendment offered by Congressman Walsh which proposed to abolish these funds. Mr. Walsh felt that treasury receipts should be uncommitted, especially in light of his expectation that when:

> ". . . this bill becomes a law we will see enormous development of water power in this country and that it will revolutionize the hydroelectric power plants of the country and result in the payment into the Treasury of the United States of many hundreds of thousands of dollars." *Id.* at 2236.

Congressman Ferris opposed the Walsh proposal, arguing:

> "[S]ection 17 has to do with the receipts from royalties or rentals on the franchises herein granted. There are approximately 165,000,000 acres of forest reserves in the country. Many water power sites are on those forest reserves. They are to be developed under this bill. They are scattered throughout the 17 public land States of the West. This bill provides that 50 per cent

> of the receipts of this water power development shall go to the development of those forests, the construction of roads, the prevention of forest fires, and improvements generally. [Congressman Walsh] would take that away from them. . . .
>
> "Now, passing from that the next provision is that 50 per cent of the royalty or rentals is to be expended upon the national parks. There are some 30 or 40 national parks and monuments, the Nation's playgrounds, and every citizen of the Republic is interested in their beautification, their preservation, and development. This bill provides that 50 per cent of the proceeds of the water power developed in these 30 or 40 national parks shall be expended for the beautification of the Nation's playgrounds. Again, the gentleman, by his amendment, would strike them down; again he would denude them—strip them—throttle them—deny them. Mr. Chairman, there are about 335,000,000 acres of public lands in the United States, and about 370,000,000 acres in Alaska, 700,000,000 acres in all, and they have many water-power sites on them and this provides that 50 per cent of the water power or receipts of the water power developed on those public lands shall go to the development of the roads and schools in those sparsely settled States. [Congressman Walsh], with all of his earnestness and zeal, would take that away from the States." *Id.*

The Walsh proposal was rejected. *Id.* at 2237. See Senate debate on proposed amendments to Section 17 indicated that the phrase "charges arising from licenses hereunder" was interpreted to refer to "remuneration from those who use water power . . . ," 59 CONG. REC. 1475 (1920) (remarks of Senator Lenroot), and to "funds that are derived from water power . . . ," *id.* at 1477 (remarks of Senator Nelson). *See also* 58 CONG. REC. 2242-43 (1919), wherein the House debate on

Section 24 of H.R. 3184, which applies broadly to "any proposed project under the provisions of this act . . . ," indicates the view that the section countenanced merely "the water-power applicant." *Id.* at 2243 (remarks of Congressman Elston.)

Thus, House debate on H.R. 3184 demonstrates a congressional intent to deal merely with water-power development in the present bill. This is shown both by general remarks made by the members when discussing the nature of H.R. 3184, and by a consistent interpretation by House members of general provisions dealing with "licenses (or projects) hereunder" as referring to hydro-power facilities.

Senators apparently shared the view that, as passed by the House, H.R. 3184 dealt merely with the regulation of hydro-power. Thus, in giving a general introduction to the bill for his colleagues, Senator Jones referred to H.R. 3184 as the "water-power legislation." 59 CONG. REC. 241 (1919). In his rather lengthy speech advocating Senate passage of the bill, Senator Jones mentioned only the necessity of providing for hydro-power development. For example, he asserts that:

> "If 40 years ago, instead of enacting restrictive laws which have prohibited development of our water powers, Congress had invited their development through fair and reasonable terms, the beginning of the World War would have found the United States with 20,000,000 developed hydro-electric power [horsepower], instead of 5,000,000.
>
> " . . . Every undeveloped water power for which a market now exists represents a waste of an inexhaustible natural resource." *Id.*

* * * * *

"The necessity for the development of our water power is of paramount importance to the people of the United States, and Congress should enact a law without further delay the terms of which will make the investment of capital safe and not prevent a reasonable return.

"The bill now before the Senate is perhaps too restrictive in terms and requirements it imposes on the capital invested and upon the details of operation, but water-power men tell me they can work under it, and I trust that the Senate may pass the committee bill without in any way making its terms more onerous." *Id.* at 244.

The conclusion that Mr. Jones views the House-passed bill as pertaining to water-power development to the exclusion of energy developed by other power sources is supported by the following remarks:

"[In the State of Washington] coal is mined and steam-power plants are operated within the sound of descending waters, and trainloads of coal are imported each day from British Columbia.

* * * * *

"The utilization of even one-third of the enormous amount of energy latent but now wasting in our falling waters would make the United States the greatest manufacturing country of the world. The development of our water powers is intimately connected with the solution of such great national problems as the national defense; extension of inland waterways; shortage of food, conservation of coal, oil and labor; irrigation of arid lands; and railroad car shortage. In addition to conserving vast quantities of coal and labor to mine and handle it, the hydroelectric energy existing in our running waters will, when developed, be utilized in . . . manufacture. . . ." *Id.* at 241.

In his synopsis of the House-passed bill, Senator Jones delineated the powers conveyed to the Federal Power Commission, indicating jurisdiction merely over water-power development:

> "The bill creates a Federal water-power commission consisting of the Secretaries of War, Interior and Agriculture, to which is given authority over all matters over which the Federal Government has jurisdiction, pertaining to the development of water powers in navigable streams and the improvement of navigation incident thereto, over the development of water power in the public domain, and the development of water power in the national forests. Under the laws now in force the development of water powers contained in navigable streams is under the jurisdiction of the War Department, those in the public domain are under the Interior Department, and those in the national forests are under the Department of Agriculture. The establishment of this commission, according to those who strongly favor it, would promote unity of action, together with economy of operation, through segregating all authority in this board, whose members would bring to its aid the personnel and vast machinery of the three great governmental departments over which they preside." *Id.* at 244.

Senator Jones, in outlining the preferences given the federal and local governments mentioned only the development of hydro-power:

> "It will thus be seen that under the terms of the act the Federal Government has, through its commission, the first right to develop any of the water powers under its jurisdiction. Should the Federal Government elect not to do so, then States and municipalities are accorded a preference right to licenses on even terms over citizens, associations

> of citizens, or corporations organized under the laws of the United States or any of the States thereof. Neither the Federal Government, the States, nor municipalities would pay any charges in event of their developing water power, and the entire burden of sustaining the cost of administration of the act, in addition to payment for use of Government lands, would fall upon such citizens and private corporations as cared to enter the field of water-power development." *Id.* at 246.

Senator Jones bemoaned what he considered to be the excessive restriction on private hydro-power development, but indicated that the water-power industry was capable of operating under the bill:

> "The Government . . . is securing a tremendous bargain if it can induce the development of the water powers of the country under the terms of this bill. And, indeed, such restrictive terms as I have set forth, and which are contained in this act, do not constitute a very attractive proposition to enterprising men and to capital; but, as I said before, water-power men tell me they can work under it, and so I hope we may soon pass it." *Id.*

The introductory remarks of Senator Nelson further indicate that Congress viewed the FPC as a "water-power" commission:

> ". . . The pending bill provides for the establishment of a *water-power commission,* consisting of the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of War. . . . The *water-power commission* thus created is given authority to act within the scope of the bill." *Id.* at 1041 (emphasis added).

Mr. Nelson indicates that the provision for temporary permits in the bill applied merely to the construction

of "any dam or works for the development of water power." *Id.* Similarly, the licensing provision was seen as encompassing "water-power rights." Senator Nelson indirectly referred to the surplus water clause in what is presently Section 4(e) of the Act when he drew the following distinctions:

> "There are two classes of dams. Where a dam is constructed by the Federal Government for purposes of navigation, and *there is a surplus power to be disposed of that ought to be utilized, in that case the Federal Government having constructed the dam, and by the construction of it having created a water power, manifestly the Government is entitled to full compensation for the use of that power.* But where the Government has simply issued a license to a man, giving him permission to build a dam with his own money, his own capital, his own resources; in that case I have always believed, and that has been the view of the majority of the Senate, that the Government is not fairly and equitably entitled to any pay for the use of the water. If any compensation is to be made for the use of the water, it belongs to the States or to the riparian owners." *Id.* (emphasis added).

It is clear that Mr. Nelson contemplates only the use of surplus water to develop hydro-power.

The remarks of Senator Chamberlain provide further evidence that one prime motivation for the passage of H.R. 3184 was the need to develop hydroelectric power as a means of conserving a dwindling coal supply:

> "[W]ater-power legislation can not be considered a local or a sectional question. To encourage water-power development is a national duty. It concerns every citizen of the United States,

whether he dwells in the vicinity of a water power, in a city, or upon the plains of Iowa. . . .

* * * * *

"Coal shortage brings up again the folly of leaving unused the Nation's vast resources of water power. The more these are developed the less desperate will be the fuel stringency. The waste is not alone one of money. It extends in its final direct results to public health and life itself as these are affected by the inability to get coal for heating and for the production of the necessaries of life." *Id.* at 1223.

Senator Chamberlain estimated that 100 million tons of coal per year would be saved if the available water-power were developed. *Id.* Mr. Chamberlain is not, of course, asserting that coal conservation is provided for in the bill; he merely points out it will be a beneficial result of the development of hydro-power. Thus, he concludes:

"All the available water power should be developed and in the quickest time possible, in the interest of the economic uplift of the country, of its social regeneration, and of its wealth, and in order to permit it to secure its share of the markets of the world. Hydroelectric energy gives us the means of saving our coal, enables us to obtain electricity at a low price, to lower in many cases our industrial costs of production, and to empower our agriculture. It will become the surest weapon in the economic struggle which faces us." *Id.* at 1224.

An argument by Senator Lenroot in opposition to a proposed amendment which would require a new licensee to pay severance damages to a former licensee at least implicitly demonstrates that the licensing of steam plants are not within FPC authority. Senator

Lenroot maintained that a requirement to pay severance damages would cause a lease to, in effect, be perpetual. To illustrate, Senator Lenroot propounded the following hypothetical:

> ". . . If a licensee is enabled to produce water power for $10 per horsepower and steam cost him $20 per horsepower, and by reason of the expiration of his license a new licensee comes in and takes it over, the licensee will have to build a steam plant to supply that amount of power, which will cost him twice as much as the water power. . . ." *Id.* at 1473.

Senator Lenroot argued that in the above case the new licensee, in order to take over the property, would be required to pay the licensee $10 per horsepower for an indefinite time in the future. *Id.* Senator Lenroot's hypothetical is of interest because he assumed a licensee is one who is operating a water-power facility, and that a new license having been issued, the opportunity for the former licensee to produce hydro-power will no longer exist. Producing power in a steam plant is assumed to be available, perhaps because the FPC has no power to license its use, and therefore no authority to withhold permission for its operation.

General remarks made on the Senate floor at various points during the debate indicate that H.R. 3184 was designed to deal solely with the regulation of hydro-power. Senator Harrison described the bill as "water-power legislation" and states the purpose of H.R. 3184 thus:

"This bill was designed to develop water power from the navigable streams and on the public domain in the United States. It was to encourage water-power development." *Id.* at 1483. Similarly, Senator Nelson

refers to H.R. 3184 as the "water-power bill now pending," and to the FPC as the "water-power commission." *Id.* at 1493. He described the FPC as follows:

> "Under this bill there is created a great *water-power commission* consisting of the heads of three of the great departments of the Government—the Secretary of War, the Secretary of the Interior, and the Secretary of Agriculture. That commission is to pass on all *water-power questions* in the entire country. . . ." *Id.* at 1493 (emphasis added).

Mr. Nelson answered the conservationists who had maintained that the bill provided for too great an incentive to the hydro-power companies thus:

> "[I]t is idle, it is mere camouflage, to say that we are giving away millions and millions of dollars of water power to water-power companies. We are giving it away to the people of the States and to their representatives. . . .
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> * * * * *
>
> "These great corporations are needed for the development of water power, and the obstacle to water-power development that has intervened now for 10 years has created a monopoly in this country by leaving it to those who own now-existing dams. By holding up legislation, by preventing legislation for water-power development for 10 years, those that were fortunate enough to have water powers before that time have had a monopoly of it, and they are anxious to continue the monopoly. . . ." *Id.*

Senate debate on two proposed amendments to Section 10(e) supports the conclusion that the Congress intended that "licensees" under the bill were to be only hydro-power developers. The first amendment was

proposed by the Senate Commerce Committee, and provided that Section 10(e), as passed by the House, be replaced with a provision which would prove less costly to the hydro-power corporations. The proposed amendment was to replace:

> "That the licensee shall pay to the United States reasonable annual charges in an amount to be fixed by the commission. When licenses are issued that contemplate the use of Government dams or other structures owned by the United States, in the discretion of the commission, the charges to be paid by the licensee may be readjusted at the end of 20 years after the beginning of operations and at periods of not less than 10 years thereafter, in a manner to be described in each license." *Id.* at 1429,

with:

> "That the licensee shall pay for the license herein granted such reasonable annual charges as may be fixed by the commission for the purpose of reimbursing the United States for the cost of administration of the act in relation to water powers developed under its jurisdiction, in the proportion that the water power developed by the project covered by said license bears to the total water power developed by all projects licensed under the act, and for that purpose such charges may be readjusted from time to time, not oftener than once in two years; the licensee shall also pay for the use and occupation of any public lands and lands in reservations, except tribal lands embraced within Indian reservations, necessary for the development of the project covered by the license such reasonable annual charges based upon the actual value of the Government lands used as may be fixed by the commission, but in no event shall the annual charge for the foregoing exceed 25 cents per developed horsepower: *Provided,* That when licenses are issued involving the use of Govern-

> ment dams or other structures owned by the United States or tribal lands embraced within Indian reservations the commission shall fix a reasonable annual charge for the use thereof, and such charges may be readjusted at the end of 20 years after the beginning of operations and at periods of not less than 10 years thereafter in a manner to be described in each license." *Id.*

The proposal sparked a heated debate. Senator Lenroot argued that the committee amendment constituted "a clear gift of hundreds of millions of dollars to the water-power corporations of the country, without any return to the public." *Id.* Senator Lenroot alluded to a hypothetical discussed earlier by him, wherein he illustrated a situation in which a savings to the water power company will not affect the rates charged to the consumer. The Senator assumed a city that utilizes 15,000 horsepower, 5,000 of which "is produced from a dam licensed *under this act*, . . . [and] the other 10,000 horsepower is produced by steam." *Id.* at 1101 (emphasis added). Senator Lenroot's point is that the Commission, in this situation, will permit a rate charged by the water-power utility which would enable the steam-power utility, with a higher cost of operations, to exist and pay a fair return. *Id.* Whether Senator Lenroot's thesis is correct, for the purposes of this case, is unimportant. It is important, however, that the senator appeared to view only the water-power plant to be licensed "under this act." The debate on Senator Lenroot's hypothetical did not question this assumption. *See id.* at 1430-31. It is abundantly clear from Senator Lenroot's argument that he views Section 10(e) as affecting only "water powers," and the "water-power utility." *See id.* at 1430. Senator Nelson supported the proposed amendment, arguing that "[i]t goes without

saying that all the burdens put upon water power in these cases will ultimately come out of the consumer in one form or another." *Id.* Senator Nelson categorized Senator Lenroot's hypothetical as "an extravagant and unreasonable case," and maintained:

> "Those cases are very few and far between. I desire to say that where *water power* is developed and electric power is thereby secured in the neighborhood, it is not likely that any steam plant will be started in competition with it, for it can not compete with it." *Id.* (emphasis added).

Senator Nelson's constant references to "water powers" and "water-power development" show the scope of Section 10(e) he intended. Finally, Senator Norris endorsed Senator Lenroot's argument stating that:

> ". . . this commission in that case [should] charge a rate for a license for the development of the power that comes from the water that will be sufficient to make up the difference; otherwise the company developing the water power would make all of the difference, and the people of the immediate vicinity would get no benefit whatever from it." *Id.* at 1431.

Throughout Senator Norris' speech references to "water power" and "the water-power people" were abundant. *See id.* Although the Commerce Committee proposal was rejected on January 12, 1920, *id.* at 1432, it was reoffered in the Senate on January 15, 1920, by Senator Nelson, who reminded his colleagues that it related "to the compensation for the use of water powers built by private capital and not by the Government." *Id.* at 1571. The amendment was agreed to. *Id.* at 1573.

Senate debate on an amendment offered by Senator Nugent which would provide that Section 10(e) allow the tribal council veto power over any license authorization "in case of tribal lands embraced within an Indian reservation, which said lands were ceded to the Indians by the United States by treaty." *Id.* at 1564. Senator Walsh, in support of his opposition to the Nugent proposal, included in the *Record* a portion of a letter received from the Secretary of the Interior, which read, in relevant part:

> "The *general water-power bill,* H.R. 3184, which has passed the House of Representatives and been favorably reported by the Senate Committee on Interstate Commerce, provided a general and comprehensive plan for the leasing and development of water-power sites upon public lands, Indian reservations, and navigable streams to be controlled by a commission composed of the Secretaries of War, Agriculture and Interior. The proceeds received from such developments on Indian reservations are, under that measure, to go to the benefit of the Indians concerned. That measure amply takes care of the matter of leasing and use of such sites in Indian reservations, and in my opinion this bill should go no further than to reserve the sites and should impose no restrictions of conditions upon the leasing thereof." *Id.* (emphasis added).

Senator Myers joined Senator Walsh in opposition to the amendment, arguing:

> "If this amendment become a law, it would be in the power of a tribe of Indians, arbitrarily and without any reason whatever, to block a *project for water power development . . . .*" *Id.* at 1565 (emphasis added).

Senator Nugent, in defending his proposed amendment, was clearly concerned with the "water-power sites on

Indian reservations throughout the country that will be affected by this bill." *Id.* at 1566. The amendment was agreed to. *Id.* at 1570. Further evidence that Section 10(e) was intended by those concerned with this bill to reach no further than hydro-power development is found in a letter from Gifford Pinchot to Senator Gronna, dated January 5, 1920. The letter reads, in relevant part:

> "I am writing to call your special attention to the *water-power bill* (H.R. 3184).... This bill will settle the disposition of all our remaining public *water powers*. . . .
>
> "*Section 10(e)* gives the *public water powers* away for practically nothing by relieving *licensees* from paying the reasonable value of what they get from the public. It limits the possible charge to the reimbursement of the Government for the expenses of administering the act, plus a small charge based on the value of Government lands occupied, irrespective of their *water-power possibilities*. Thus it prevents any charge being made for the enormously valuable *water-power rights* to be granted under the bill. When a municipality is to develop and use the power for its citizens a nominal charge is right and just, but when a corporation or individual is to be given publicly owned rights and make a profit from them it is clear beyond question that a reasonable charge, based on the value given, should be made.
>
> "The right to make such a charge is clear. To abandon it for the profit of the corporations would be wholly unjustifiable. The *water-power commission* should be given a free hand to charge what the rights granted are actually worth. This grave defect in the bill can be remedied by striking out the Senate committee amendment." *Id.* at 1573 (emphasis added).

There is no mention that Section 10(e) is to reach beyond water power development.

Finally, debate on a proposed amendment to H.R. 3184 which would provide "[t]hat this act shall not take effect until the expiration of three years from and after its approval by the President" indicates that "this act" provides only for water-power development. *Id.* at 1571. Senator Nugent offered the amendment because he was:

> ". . . very strongly of the opinion that the States and the counties, municipalities, and other political subdivisions of the States in which these *water-power sites* are situated should have the right to develop them for the use of the people of those States, counties or municipalities, as the case may be. According to my understanding of this bill, it contains a provision to the effect that municipalities, counties, and so on, may make application for licenses. But it occurred to me that if this bill is enacted and becomes effective within a short time, shortly thereafter practically all of the desirable sites will have been applied for by private interests.
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> * * * * *
>
> "So far as the counties and the municipalities in Idaho are concerned, I doubt very much, although I have no definite information on the subject, *whether there is one among them that can now take out a license for the development of a water-power site. . . .*" *Id.* (emphasis added).

This amendment was opposed by Senator Nelson, who argued:

> "The country has been suffering for 8 to 10 years for the lack of *water-power* legislation. All *water-power development* has been at a standstill, and this amendment would postpone it for another three years, leaving it as though no law had been enacted. It would stay *water-power development* in Idaho, just as well as in every other State, for men who

> seek to develop *water power* want to be assured that the Government will give them permission, and without that there will be an absolute stay of all development. The amendment amounts simply to postponing the work of *water-power development* in this country for another three years, and it ought to be rejected." *Id.* (emphasis added).

The equation between the area covered by "this act" and "water-power development" could not be made more forcibly.

The conference report on H.R. 3184 was first considered by the House. *See id.* at 6381-83. The statement of the House conferees, in explaining the action of the Conference Committee, provides further evidence that the bill in general, and Section 10(e) in particular, was intended by Congress to deal only with water power development. With respect to the tribal lands amendment to Section 10(e), it was indicated that the Senate conferees receded from the amendment since the conferees "saw no reason why *water-power use* should be singled out from all other uses of Indian reservation land for special action of the council of the tribe." *Id.* at 6383 (emphasis added). In addition, the conference committee proposed a compromise Section 10(e) which contained elements of both the House and Senate versions. Section 10(e) was described as relating "to the charge imposed upon the licensee for water power developed." *Id.* at 6384. In Congressman Esch's explanation of the Conference report to his colleagues in the House, he reiterated that Section 10(e) related "to the charges for water-power development." *Id.* at 6524. In another context, Congressman Esch, in speaking of Section 17, referred to these charges as "charges derived from water-power development." *Id.* at 6524. *See*

also id., where Mr. Esch explained that the conferees "did not believe it would be advisable to [provide for federal construction of a hydro-power project at Great Falls, Maryland] through an amendment to a general water power bill . . . ." Congressman Sims opposed the compromise by the Conference Committee on Section 10(e), referring to it as "the bone of contention in every water-power fight we have ever had on this floor and in the Senate." *Id.* at 6525.

General comments made by members of the House concerning the conference report indicate that H.R. 3184 was, indeed, a "water-power bill." Congressman Treadway congratulated the conferees that "finally . . . a water-power bill has been reported that both branches seem to have agreed upon," and that provides for cooperation "between private owners and the Government for the use of the water power on navigable streams." *Id.* at 6527. Congressman Lee was equally pleased with the efforts of the Conference Committee in reporting the "water-power bill." *Id.* at 6527. His description of the bill contains many references to "water power rights." *See id.* at 6527-28. Congressman Lee, in a passing reference to Section 12, implies that perhaps the surplus water clause in Section 4(e) was intended to apply only to hydro-power uses "at" a government dam. Congressman Lee states:

> ". . . The bill provides that if the commission shall find that the *power available at any Government dam* may be advantageously used by the United States itself, or that any specific project should be developed by the United States, it shall not approve any application by any other agency, but shall report to Congress with recommendations for Government construction." *Id.* at 6527 (emphasis added).

Congressman Taylor expressed the view that H.R. 3184 protected the government and the rights of the people, while encouraging and protecting "investments in water-power development . . . ." *Id.* at 6528. Congressman Raker agreed that the legislation provided for the "proper development of the great water powers of the United States. . . ." *Id.* at 6529. Congressman Mondell felt that this "Federal legislation regulating and controlling in the interest of all the people of the country water-power development and the creation of hydroelectric energy" was well worth the effort and wait, and that it would "aid tremendously in the development of the water-power resources of the country . . . ." *Id.* at 6532. Congressman Dempsey favored the legislation, asserting that "[n]ot a pound of coal should be used where water power can be had to take its place, and there can and will be no considerable development of water power without the passage of such a measure as this." *Id.* Finally, Congressman Sinnot indicated his willingness to accept the legislation as a means "to release these vast water powers . . . ." *Id.* at 6537. The House agreed to the conference report on May 4, 1920. *Id.* at 6538-39.

Senate consideration of the conference report also clearly indicates that in passing H.R. 3184, Congress intended to pass a "water-power bill." Senator Lenroot opposed the conference report, but it is clear from his opposition that he considered the bill a measure governing water-power development. He stated his general opposition to "this water-power legislation" thus:

> "I realize . . . the very great necessity of the development of *our water power*, the great saving of coal and the effect on transportation which will

> result from the development of our water power, and I believe that inducements necessary to secure development should be offered to private capital. The difference between the committee and some of us is simply as to what inducements are necessary to secure that development. The committee evidently believes that it is necessary to go very much further in inducements than I believe is necessary to secure that development." *Id.* at 7723 (emphasis added).

Senator Hale also spoke in opposition to the bill. He recommended the adoption of certain amendments in line with his general view:

> "The purpose of this bill is not really to regulate commerce but to control water powers. As such it should not go beyond what really affects the commerce of the country." *Id.* at 7725.

Senator Hale acknowledged, however, that some legislation, such as the "present water-power act," was "undoubtedly necessary if the water-power development of the country is to be allowed to proceed." *Id.* Senator Hale was apparently concerned over the breadth of FPC jurisdiction granted in the bill:

> "[U]nder the provisions of this bill the *Water Power Commission* will, unless prevented by the Congress, assume jurisdiction over practically all of the rivers of the country. Licenses will be obtained from the commission *to erect dams and water powers.*" *Id.* at 7726 (emphasis added).

Senator King also expressed his discontent with the extensive reach of the FPC under the present bill:

> "Notwithstanding there is no plenary or other power in the Federal Government to exercise any control over the streams of the United States, except to prevent interference with their navigation,

> *this bill seeks the control of all sources of hydraulic power in the United States* as well as the control of all streams therein.
>
> "I believe a fair reading of the bill will furnish convincing proof that it seeks to control not only the water-power sites in the United States but also the corpus of the streams and the hydroelectric plants which produce electric energy, together with the power thereby developed." *Id.* at 7779 (emphasis added).

It is significant that those senators who opposed H.R. 3184 for its expansiveness never indicated the possibility that the FPC may, under the present bill, possess jurisdiction over non-hydro power plants. The Senate agreed to the Conference Report on May 28, 1920. *Id.*

VI. 1935 (74TH CONGRESS)

In Title II, Part 1, of the Public Utility Act of 1935, ch. 687, 49 Stat. 803, Congress amended the Federal Water Power Act of 1920. These amendments had been "requested by the Federal Power Commission on the basis of its experience in the administration of that act. Most of them are designed merely to clarify the act in its application to situations that have arisen in its administration." S. REP. No. 621, 74th Cong., 1st Sess. 17 (1935). The legislative history of two sections of the 1935 Act supports the view that the Federal Water Power Act in general, and Section 4(e) in particular, were intended to govern merely hydro-power development.

Section 210 of Title II, Part 1, of the 1935 Act amended Section 23 of the Federal Water Power Act. The second paragraph of Section 23 read:

> "That any person, association, corporation, State, or municipality intending to construct a

> dam or other project works across, along, over, or in any stream or part thereof, other than those defined herein as navigable waters, and over which Congress has jurisdiction under its authority to regulate commerce between foreign nations and among the several States, may in their discretion file declaration of such intention with the commission, whereupon the commission shall cause immediate investigation of such proposed construction to be made, and if upon investigation it shall find that the interests of interstate or foreign commerce would be affected by such proposed construction, such person, association, corporation, State, or municipality shall not proceed with such construction until it shall have applied for and shall have received a license under the provisions of this Act. If the commission shall not so find, and if no public lands or reservations are affected, permission is hereby granted to construct such dam or other project works in such stream upon compliance with State laws." 41 Stat. 1063, 1075.

S. 2796, the bill reported from the Senate Interstate Commerce Committee, amended this paragraph by, *inter alia,* inserting the following sentence at the beginning of the paragraph:

> "It shall be unlawful for any person, State, or municipality to construct, operate, or maintain any dam, water conduit, reservoir, powerhouse, or other works across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States (including the Territories), or *for the purpose of utilizing the surplus water or water power from any Government dam,* except under and in accordance with the terms of a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to this Act." S. 2796, 74th Cong., 1st Sess., Title II, Part 1 § 206 (1935) (emphasis added).

The Senate Commerce Committee explains the purpose and effect of the proposed amendment accordingly:

> "[A] provision is inserted expressly making it unlawful to construct a project on any navigable waters without a license granted pursuant to the act. This latter provision is in substance the effect of the River and Harbor Act of 1899 when read with the Water Power Act. It is thought desirable to bring together in a single act the positive requirements *regarding the construction of water-power projects.* Under this subsection with the two amendments here made every person intending to construct a project which might conceivably affect any navigable waters would be under the duty of coming to the Commission. The act would be greatly strengthened by enabling the Commission to preserve control over all projects with which the Federal Government has any valid concern." S. REP. No. 621, *supra* at 47 (emphasis added).

A summary of S. 2796 prepared by the Committee of Public Utility Executives summarized the amendment to the second paragraph of Section 23 by stating it provided that it was:

> "Unlawful for any person, state or municipality to *construct or operate a dam or water power facilities* upon any waters of which Congress has jurisdiction or upon public lands or reservations except under permit or existing right of way granted prior to June 10, 1920 or license granted under this Act." Summary at 48 (May, 1935) (emphasis added).

The surplus water clause in Section 210 of S. 2796, as it passed the Senate, read: "[U]tilize the surplus water or water power from any Government dam. . . ." The operative phrase "surplus water or water power" remained in the clause, and the summary of the bill

published by the Committee of Public Utility Executives again described the bill as applying to "any person, state or municipality [planning] to construct or operate a dam or water power facilities. . . ." Summary at 44 (June, 1935).

S. 2796, as reported from the House Interstate and Foreign Commerce Committee, contained a surplus water clause which read: "[F]or the purpose of utilizing the surplus water or water power from any Government dam. . . ." The House Interstate Commerce Committee report was more ambiguous than the Senate report in addressing the scope of the provision. The House report stated, in relevant part:

> "The second paragraph of section 23, . . . is . . . amended by expressly making unlawful the *construction of any dam, water conduit, reservoir, or power house* in any of the navigable waters of the United States, or upon any of the public lands or reservations in the United States, except pursuant to a permit granted prior to June 10, 1920, or a license granted pursuant to the act.
>
> "This provision is in substance the present result under the River and Harbor Act of 1899 and the Water Power Act. Furthermore, the provision making discretionary the filing of applications for preliminary permits for the construction of projects in the nonnavigable tributaries of navigable streams is changed to make such applications mandatory. In this way, every person intending to construct a project which might affect navigation would be required to come to the Commission for a determination of the interests of the United States. This would greatly strengthen the act by enabling the Commission to maintain control over all projects with which the Federal Government has any valid concern." H.R. Rep. No.

1318, 74th Cong., 1st Sess. 25-26 (1935) (emphasis added).

The summary prepared by the Committee of Public Utility Executives remained less ambiguous, however, and stated the provision dealt with "a dam or water power facilities. . . ." Summary at 42 (June 27, 1935) (preliminary draft, never published).

As reported from the Conference Committee, Section 210 of S. 2796 amended the second paragraph of Section 23 by, *inter alia*, inserting the following section to begin what is presently Section 23(b):

> "It shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, power house, or other works incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States (including the Territories), or *utilize the surplus water or water power from any Government dam*, except under and in accordance with the terms of a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to this Act." H.R. REP. No. 1903, 74th Cong., 1st Sess. 46 (1935) (emphasis added).

The House conferees explained this amendment of Section 23 thus:

> "Section 23(b) as carried in section 210 of the Senate bill provided that it should be unlawful for any person 'for the purpose of developing electric power', to construct dams or other works on navigable waters or public lands or 'to utilize' surplus water or water power from any Government dam except under a license or other authority granted prior to 1920. The words quoted were

> not in the House amendment, but are incorporated in the conference substitute, with the addition that works 'incidental thereto' come within the prohibition." Statement of the Managers on the Part of the House, *id.* at 74.

The Public Utility Act of 1935 was approved August 26, 1935. The Committee of Public Utility Executives described Section 210 of the Act as pertaining merely to the construction or operation of "a dam or water power facilities. . . ." Summary at 32 (Sept. 1935).

The legislative history of Section 210 is relevant to a determination of the scope of the surplus water clause in Section 4(e) since it too contains the language "surplus water or water power." The Senate report on the bill expressly states that this section pertains merely to the "construction of water-power projects." This view is reinforced by a private organization's consistent interpretation of Section 210 as concerned with the construction and operation of "a dam or water power facilities." This view is neither contradicted nor expressly supported by the subsequent House report and conference report on the bill.

The second amendment enacted in 1935 which is relevant to the determination of the scope of the Federal Water Power Act of 1920 is the amendment of Section 10(e) provided for in Section 206 of Title II, Part 1, of the Public Utility Act. Section 10(e) of the Federal Water Power Act applies broadly to the "reasonable annual charges" paid by the "licensee." 49 Stat. 803, 843. The Senate report on S. 2796, in describing the proposed amendment to Section 10(e), states:

> "Several minor changes are made in section 10(e), relating to the charges to be paid by

licensees. The charge to be fixed by the Commission for the purpose of reimbursing the United States for the cost of administration is limited to the cost of administering this part of the act, instead of the entire act. This makes no change in the present situation, but *confines the charges to those needed for the administration of the water-power provisions.*" S. REP. No. 621, *supra* at 45 (emphasis added).

The House Report on S. 2796 does not explicitly describe Part 1 of the Federal Power Act as "the water-power provisions," but does apparently conceive of a licensee as operating a "project."

> "There are several minor changes in section 10(e) relating to the charges to be paid by licensees. The amount to be fixed for the purpose of reimbursing the United States for the cost of administration is limited to the present amount by the provision that the base is the cost of administering this part of the act, not the entire act, which would include the new parts II and III. The Commission's authority to adjust all charges from time to time is made express. It is also made clear that the adjustment of charges for licenses involving the use of Government lands shall be made 'by the Commission'; the time of such adjustment is calculated from the time the *project* is available for service, instead of from the beginning of operation; . . ." H. R. REP. No. 1318, *supra* at 24 (emphasis added).

The conference report on S. 2796 merely refers to the tribal lands amendment. H. R. REP. No. 1903, *supra* at 73. Thus, the Senate report on S. 2796 provides further support for the view that Part 1 of the Federal Power Act regulates merely hydro-power development. The House report and the conference report on the bill do not contradict this notion.

ITEM 2

FINDINGS OF FACT, JICARILLA APACHE TRIBE v. MORTON, ET AL., 3 ERC 1919 (1972), AFF'D, 471 F.2d 1275 (9TH CIR. 1973)

Findings of Fact

From a review of the pleadings, memoranda, affidavits, exhibits and all matters filed herein which it appears to the Court the parties stipulated and intended that the Court take into consideration in determining this case, the Court adopts as its Findings of Fact those proposed or submitted by the intervenors; therefore,

It Is Ordered that the Findings of Fact proposed by the intervenors herein and heretofore submitted to the Court are hereby adopted as the Findings of Fact of this Court the same as if fully set forth herein.

* * * * *

Findings of Fact

Four Corners Project

1. The Four Corners Power Plant is located on the Navajo Indian Reservation near Farmington, New Mexico. The Plant consists of five coal-fired steam electric generating units. Units No. 1 and No. 2 were placed in commercial operation in 1963. Unit No. 3 was placed in commercial operation in 1964. These three units are owned and operated by Arizona Public Service Company. Units No. 4 and No. 5 are owned as tenants in common by Arizona Public Service Company (15%), El Paso Electric Company (7%), Public Service Company of New Mexico (13%), Salt River Project Agricultural Improvement and Power District (10%), Southern California Edison Company

(48%), and Tucson Gas and Electric Company (7%). Arizona Public Service Company operates Units No. 4 and No. 5 as Operating Agent for the owners of these units. Unit No. 4 was placed in commercial operation in July, 1969. Unit No. 5 was placed in commercial operation in July, 1970.

2. The Four Corners Plant was originally established in 1960, when Arizona Public Service Company obtained a site lease for a power plant from the Navajo Tribe. The instruments relating to this lease were:

(a) Indenture of Lease between the Navajo Tribe of Indians and Arizona Public Service Company, signed by the parties on December 1, 1960, and approved by the Secretary of the Interior on December 14, 1960.

(b) Wholesale Power Supply Agreement between Arizona Public Service Company and the Navajo Tribe of Indians, signed December 1, 1960 and approved by the Secretary of the Interior on December 14, 1960.

3. On July 6, 1966, by provisions of the "Arizona § 323 Grant" from the Secretary of the Interior and by provisions of the Supplemental and Additional Indenture of Lease, rights-of-way and easements were granted to Arizona Public Service Company for use in connection with Units 1, 2 and 3.

4. Units No. 4 and No. 5 were added to the Four Corners Generating Station pursuant to the following instruments:

(a) "§ 323 Grant", granting multiparty rights-of-way and easements, for the enlarged station, by the Secretary of the Interior was signed on July 6, 1966.

(b) Supplemental and Additional Indenture of Lease (which also supplemented and modified the 1960 Lease to Arizona Public Service Company) between the Navajo Tribe of Indians and all owners, signed by the parties May 27, 1966 and approved by the Secretary of the Interior, July 6, 1966.

5. Coal for each of the five units is supplied by Utah Construction and Mining Company from lands under lease from the Navajo Tribe since 1957. Water for use of Units 1-5 (about 51,600 acre-feet annually) is obtained from the San Juan River under diversion rights granted by the New Mexico State Engineer in 1955. A water service contract approved by Congress was executed by the Secretary of the Interior in April 1968 with Utah Mining and Construction Company for 44,000 acre-feet of water from the Navajo Reservoir, a Bureau of Reclamation facility, for possible future development of coal resources.

6. Based on environmental provisions included in the 1966 lease, the lessees are required to install the best pollution control equipment then available in all five units and to periodically update such equipment. The plants are required to operate in compliance with criteria specified in the lease. The technology of pollution control equipment is subject to periodic review by the Secretary of the Interior to determine if updating is necessary. Arbitration is provided if differences of opinion should arise concerning the implementation of these provisions.

7. On October 22, 1970, federal approval was given for the design of scrubbers to be installed on Units 1, 2 and 3. The only pending request for approval now before the Department of the Interior for the Four

Corners Plant concerns the design of air pollution control equipment to be added to Units 4 and 5 which will materially reduce particulate emissions.

8. With respect to Units 6, 7 and 8 at the Four Corners site, no federal action has been taken since January 1, 1970, and no federal actions are pending. At this time, these units are a potential future site for one or more fossil-fueled generating units similar to a large number of other potential sites scattered throughout the Southwest.

9. As of January 1, 1970, it was not practicable to reassess the basic course of action with respect to the Four Corners Project.

10. Federal action on the Four Corners Project since January 1, 1970, has been shaped to minimize adverse environmental consequences.

11. An environmental impact statement has not been prepared with respect to federal action on the Four Corners Project.

MOHAVE PROJECT

12. The Mohave Project consists of two 755,000 kw coal-fired steam electric generating units located in Clark County, Nevada. The related Eldorado Transmission System includes 57 miles of jointly owned 500 kv transmission line connecting the Mohave Project with the jointly owned Eldorado substation near Boulder, Nevada. The Eldorado Transmission System consists of three major components:

(a) The Mohave-Eldorado 500 kv Transmission Line;

(b) The No. 1 and No. 2 Eldorado-Mead 200 kv Transmission Lines;

(c) The Eldorado Substation Site.

13. The participants in this project are: Southern California Edison Company ("Edison") (56%), Salt River Project Agricultural Improvement and Power District (10%), Nevada Power Company (14%), and the Department of Water and Power, City of Los Angeles (20%). The major components of the Eldorado Transmission System are owned by some or all of the participants in various different percentages.

14. The plant is constructed on non-Federal, non-Indian lands. Coal is supplied to the plant from the Black Mesa in Arizona by a 275-mile underground slurry line. The coal is mined from Indian lands under leases dated February 1, 1964, and June, 1966, between Sentry Royalty Company and the Navajo Tribe for approximately 24,858 acres and 40,000 acres, respectively. A June, 1966 lease between Sentry Royalty Company and the Hopi Tribe covers the same 40,000 acres as are covered in the latter lease with the Navajo Tribe. Sentry Royalty Company's rights have been assigned to Peabody Coal Company, with the approval of the Navajo and Hopi Tribes.

15. Preliminary studies relating to the selection of the site for the Mohave Project were under way as early as 1962 in which the economics, water availability, fuel availability pertaining to various sites were explored. A decision was made in 1965 to construct the Mohave Project at its present site on a joint ownership basis.

16. On October 26, 1966, the United States conveyed fee title to certain lands, including the plant site, to the Colorado River Commission of Nevada (the "Commission") which, on the same date, conveyed title to Edison of the Mohave Plant Site.

17. On October 26, 1966, the United States entered into a Contract for Delivery of Water with the Commission to deliver to the Commission not more than 30,000 acre feet of the State of Nevada's annual allocation of 300,000 acre feet allotted under the Boulder Canyon Project Act by contract dated March 30, 1942, as supplemented January 3, 1944, between the United States, the State of Nevada, and its Commission. In turn, on the same date, the Commission entered into a Water User Contract with Edison pursuant to which the Commission agreed to deliver to Edison not to exceed 30,000 acre feet of water for use in connection with the Mohave Project. The Water User Contract obligates Edison to perform the obligations of the Commission under its contract with the United States. The rate of diversion of water delivered was limited to not in excess of 50 cubic feet per second. The contract contains further provisions requiring Edison to prevent any significant and measurable pollution of the waters of the Colorado River, intermittent tributary streams of underground waters and/or any measurable return of waste water thereto by reason of development, operation return or activities on the plant site unless otherwise agreed by the Commission and the Secretary of the Interior. All designs and plans for waste water, waste material and sewage disposal facilities were required to be submitted to the Secretary for his written approval in advance of construction or installation and in advance of any modification or removal thereof. The agreement further provides that nothing in the contract would be construed to relieve Edison from complying with all valid applicable water pollution control regulations under Federal, State or County jurisdiction then or thereafter in force.

18. The Water User Contract required the prior written approval by the Secretary of the Interior of construction, installation, removal or major modification of air pollution control equipment employing the most effective, commercially proven, electrostatic concept available under the technology known at the time of design of said facilities, and Edison was required to operate such equipment so as to remove not less than 97% of the particulate matter in the stack emissions in each month and not less than 96% thereof in any 24-hour period, subject to deviations arising from uncontrollable forces. The contract also specified the height of the plant stack to be not less than 500 feet above ground grade and requires a review not less often than every 10 years of technological advances in air pollution control equipment to determine the feasibility of installing additional equipment or modifying existing equipment, taking into account the costs as well as the benefits of improved air pollution control. The contract called for the monitoring of the operation and efficiency of the air pollution control equipment and the furnishing of monthly reports showing the average month assay of the ash and sulphur content of the coal employed. The contract also provides that nothing therein would be construed as to relieve Edison from complying with all valid applicable air pollution control laws and regulations under Federal, State or County jurisdiction then or thereafter in force.

19. The Water User Contract obligated Edison, unless the Secretary of the Interior otherwise approved, to use coal mined from the Black Mesa area located on Indian Reservation land in Arizona as the fuel supply for the plant, with exceptions permitting the use of natural gas for ignition purposes at all times, and

natural gas or other coal in the event of emergencies or unavailability of such coal.

20. On December 12, 1966, the Mohave Project Preliminary Agreement between Nevada Power Company, Salt River Project, and Edison was entered into to establish in a preliminary way the responsibility for construction and operation of the Mohave Project, the participation shares of each of the parties, an outline of the definitive agreements required to be negotiated and executed, and a reservation of the right of Edison to make available a 20% interest in the project to The Los Angeles Department of Water & Power. The Plant Site Conveyance and Co-Tenancy Agreement dated May 29, 1967, between Nevada Power Company, Salt River Project and Edison, and the Plant Site Conveyance and Co-Tenancy Agreement Assignment between Edison and The Los Angeles Department of Water & Power dated December 23, 1968, definitively established the ownership shares of the participants in the project and additional contracts among the participants were negotiated and signed at various dates from June, 1967, through December, 1968, when the participation of The Los Angeles Department of Water & Power was finalized.

21. On January 6, 1967, Edison and a predecessor in interest of Peabody Coal Company entered into the Mohave Project Coal Supply Agreement calling for the delivery by means of a 275-mile 16 inch coal slurry pipeline from lands held under mining leases dated February 1, 1964, from the Navajo Indian Tribe and from the Hopi and Navajo Indian Tribes, the latter lease covering the two tribes' undivided interests in lands within a Reservation created by the 1882 Executive Order of the President of the United States. The

Mohave Project Coal Supply Agreement provides for the delivery of a minimum of 117 million tons of coal to the Mohave Project plant site over a 35-year period. Plans for the pipeline crossing of the Colorado River were approved by the Department of Interior, January 11, 1967.

22. On May 29, 1967, undivided interests in the plant site, the Water User Contract and the Coal Supply Agreement were assigned by Edison to Nevada Power Company and Salt River Project, and on December 23, 1968, an undivided interest in land and in the Water User Contract and Coal Supply Agreement were assigned to The Los Angeles Department of Water & Power.

23. Construction of both units commenced June 1, 1967, and on January 1, 1970, Unit 1 was 70% complete, Unit 2 was 40% complete, with overall construction 55% complete. To that date total expenditures aggregated approximately $110 million. Contractual commitments for approximately $200 million of the estimated final cost now estimated at $234 million had been made.

24. Pursuant to the provisions of the Water User Contract, the following federal approvals were granted: plans and designs for air pollution control (1968); designs and specifications for the ash disposal facility (October, 1970); plans and specifications for additional sewerage facilities for a maintenance building (January, 1971); plans for draining excess waste water from evaporation pond (March and April, 1971); and plans and specifications for construction of a second industrial waste water evaporation pond (April, 1971).

25. By June 1, 1971, construction of Unit 1 had been completed and was in commercial operation. At that

date, construction of Unit 2 was 90% complete, with overall construction of the project 95% complete. An aggregate of approximately $200,700,000 had been expended. Unit 2 is now in commercial operation.

26. Applications on behalf of Nevada Power Company, Salt River Project and Edison for transmission rights-of-way were filed October 11, 1968, with the Bureau of Land Management and were granted by Decision issued December 5, 1968. Applications on behalf of all four participants were filed February 27, and April 22, 1969, for rights-of-way and easements covering respectively the Eldorado Substation and the Mohave-Eldorado 500 kv transmission line. The applicable rights-of-way and easements for the Eldorado Substation were acquired by Decision dated August 7, 1969, and for the transmission line by Decision dated December 30, 1969, which was corrected on January 8, 1970, to include The Los Angeles Department of Water & Power in conformity with the original application. Construction of the Eldorado Transmission System commenced December 1, 1968, and it was placed in operation December 16, 1969, at a cost of approximately $20 million.

27. There are no pending approval actions in the Department of the Interior for the Mohave plant except design of a proposed increase in the capacity of the waste water pond.

28. As of January 1, 1970, it was not practicable to reassess the basic course of action with respect to the Mohave Project.

29. Federal actions on the Mohave Project since January 1, 1970, have been shaped to minimize adverse environmental consequences.

30. An environmental impact statement has not been prepared with respect to federal actions on the Mohave Project.

NAVAJO PROJECT

31. The Navajo Project consists of the following components:

(a) Three coal-fired electric generating units having a nameplate rating of 750 megawatts each, located approximately five miles east of Page, Arizona.

(b) A 79-mile coal haul railroad which will transport coal from Peabody Coal Company's Black Mesa Mine located on the Navajo and Hopi Indian Reservations to the plant site for the Navajo Generating Station.

(c) A 500 kv electric transmission line to transmit power and energy from the Navajo Generating Station to the McCullough Substation located in Southern Nevada.

(d) Two 500 kv electric transmission lines to transmit power and energy from the Navajo Generating Station to the Westwing Substation located in Northwest Metropolitan Phoenix.

32. The participants in the Navajo Project are Arizona Public Service Company (14%), Salt River Project Agricultural Improvement and Power District (21.7%), United States of America (24.3%), Tucson Gas & Electric Company (7.5%), Nevada Power Company (11.3%), Department of Water and Power, City of Los Angeles (21.2%). The United States was authorized to participate in the plant to supply power for the Central Arizona Project by P.L. 90-537, 82 Stat. 885, Act of September 30, 1968.

33. The decision to locate the Navajo Generating Station near Page, Arizona, was reached after an intensive study of the need for power in the future, the locations of a fuel source and cooling water, proximity to transmission facilities and load centers for the participants, and social and environmental factors. In June of 1968, Secretary of the Interior Stewart Udall met with representatives of various organizations which had expressed an interest in additional electric generating capacity in the Southwest. As a result of the meeting, a joint study committee was formed and designated as the Navajo-Four Corners Steering Committee. The Steering Committee undertook as its task the investigation of the feasibility of developing major coal-fired thermal electric generating stations at Page, Arizona, Four Corners, New Mexico, and any other suitable alternate location.

34. After an intensive investigation by eight separate task forces, the following conclusions were reached:

(a) Based upon the load growth in the area, expressions of interest of potential participants and economic transmission system development, there was need for three 770 megawatt units in the years 1974, 1975 and 1976.

(b) The most economical alternative to supply these requirements would be the installation of three 770 megawatt units at a site located near Page, Arizona, which would be fueled by coal from Black Mesa coal deposits on lands leased by Peabody Coal Company from the Navajo and Hopi Indian Tribes. It was further concluded that the most economical means of transporting the coal from the Black Mesa Mine to the plant site would be by train.

(c) The capacity generated by the three 770 megawatt units could be economically transmitted to the load centers of the utilities expressing an interest in participating in the Navajo Project over three 500 kv lines. One 500 kv line would go from the Navajo Generating Station west to the McCullough Substation, located in the southern tip of the State of Nevada near Boulder City. Two 500 kv lines would go from the Navajo Generating Station plant site south to a point in northwest Phoenix. Each of the participants in the Navajo Project would then require additional transmission facilities so as to transmit their entitlement from the Navajo Generating Station from the terminus of the 500 kv system into their respective systems.

(d) The Navajo Project offered the most economical source of pumping capacity for the Central Arizona Project.

35. On September 30, 1969, the Secretary of the Interior filed with Congress the report required by the Colorado River Basin Project Act advising Congress of his findings that participation in the Navajo Project represented the most suitable alternative for supplying the power requirements of the Central Arizona Project. Shortly thereafter, and prior to December 31, 1969, the participants entered into the Navajo Project Participation Agreement dated as of September 30, 1969, obligating them to proceed with the Project.

36. The participants in the Navajo Project were committed to proceed with this project as of September 30, 1969, and the fact that the National Environmental Policy Act of 1969 was to become effective on January 1, 1970, did not influence in any way the date on which the participants in the Navajo Project committed themselves to proceed with the Project.

37. The generating station is located on Navajo tribal lands. The Navajo Tribal Council entered into an agreement for lease of these lands in September, 1969. The lease was approved by the Department of the Interior in December, 1969. A water service contract (14-06-400-5033) for up to 34,100 acre-feet of consumptive use annually was executed by the Department of the Interior January 17, 1969. A grant of various rights-of-way, easements, and access roads was approved by the Department of the Interior in December, 1969.

38. Under the water service contract and other project agreements, the owners are required to install the most effective commercially proven electrostatic or equally effective air pollution control equipment then available, periodically update such equipment, and operate the plant in compliance with operational criteria specified therein. The contract does not relieve the contractor from compliance with applicable, Federal, State and local air and water pollution control standards. Disagreement as to the implementation of these provisions is subject to arbitration.

39. The coal for the Navajo Project is to come from Black Mesa, Arizona. Part of the coal lease is on Navajo tribal lands and part is on a joint use area of the Navajo and Hopi Tribes. The Navajo Tribe entered into two coal mining leases (14-20-0603-8580 and 14-20-0603-9910) in 1964 and 1966, respectively. The Hopi Tribe entered into a coal mining lease (14-20-0450-5743) in June, 1966. The coal is to be hauled by rail 78 miles to the plant site. An application by the plant participants for rights-of-way and easements from the Navajo Tribe for the coal-haul railroad was approved in January, 1971.

40. Prior to January 1, 1970, the participants in the Navajo Project had expended funds and entered into contracts for the purchase of equipment and services for the Navajo Project. The amount involved in these expenditures and contracts totaled $107,437,000 as of January 1, 1970. Actual physical construction of the Navajo Generating Station commenced in April of 1970, and actual physical construction of the Coal Haul Railroad commenced in February of 1971.

41. Pursuant to the terms and conditions of the Water Service Contract of January 17, 1969, and the Indenture of Lease with the Navajo Tribe, the Department of the Interior must review and approve the plans for the following major systems relating to air and water quality control:

(a) Chimney
(b) Lake Pumping Station
(c) Ash Handling Equipment
(d) Ash Disposal Area
(e) Sanitary Sewage
(f) Process Waste Disposal
(g) Particulate Removal Equipment
(h) SO_2 Removal Equipment
(i) Coal Handling Facilities
(j) Waste Water Drainage and Discharge
(k) Coal Pile Stabilization
(l) Pollution Monitoring Instrumentation

42. The non-federal participants in the Navajo Project must receive the power to which they are entitled from the Navajo Project by the projected completion dates for the three units of that Project, June, 1974, 1975 and 1976 respectively, in order to supply the anticipated requirements of their customers. It is nec-

essary that the construction schedules be essentially met in order to have the generating units in commercial operation as required. Unavailability of power from the Navajo Project according to schedule would place in serious jeopardy the ability of the participants to serve their customers.

43. Following a determination by the Secretary of the Interior that such actions were necessary to permit the project to proceed in accordance with the established construction schedules and that these particular approvals could not be delayed to permit preparation and filing of a final environmental impact statement, the Department of the Interior approved the license agreement for the pipeline and holding reservoir for water and coal haul railroad construction in April, 1970, a water service agreement for plant construction in 1970, an easement for water intake pipeline in October, 1970, a section 323 Grant covering the railroad right-of-way in January, 1971, plans and specifications for the waste water treatment plant in March, 1971, a water service contract for construction of the coal haul railroad in April, 1971, and the chimney height in May, 1971.

44. In 1969, Bechtel Corporation, Morrison-Knudsen Company, Inc. and Dames & Moore were employed by Salt River Project, the Project Manager, to make independent studies concerning the environmental aspects of the Navajo Generating Station and coal haul railroad. In no case has the Salt River Project or any of its officers, agents or employees dictated to these companies the conclusions that they were to reach in these studies and the studies have in fact been independent.

45. Subsequent to January 1, 1970, each of the environmental systems related to the Navajo Generating Station has been re-evaluated and substantial modifications made in the environment systems as a result of this reevaluation. Prior to January 1, 1970, it was estimated that the environmental systems relating to the Navajo Generating Station would cost $28,010,000 and, as of November 1, 1971, it is estimated that the environmental systems will cost $138,360,000.

46. On January 1, 1970, it was not practicable to reassess the basic course of action established by the participants in obligating themselves to proceed with the Navajo Project. However, alternates to each of the environmental systems have been reviewed and substantial alternations made in these systems in order to minimize their adverse environmental impact. The following major environmental systems have been reassessed since January 1, 1970:

(a) The original design for the Lake Pumping Station called for extending pipes over the cliffs of Lake Powell. These pipes would have been visible from the Lake. Since January 1, 1970 the design of the water in-take facilities was modified and present plans call for slant drilling so as to avoid any defacement of the Lake Powell cliffs and to recess the Lake Pumping Station so that it will not be visible from any point on Lake Powell.

(b) The original plans for the Navajo Generating Station called for returning up to 5,900 acre feet of cooling tower blowdown to Lake Powell. The return of water was permitted under the terms and conditions of the Water Service Contract entered into between the Salt River Project and the United States Bureau of Reclamation. After extensive hydrologic and environmental studies, it was concluded subsequent to January

1, 1970 not to return any water to Lake Powell notwithstanding the fact that the return of the cooling tower blowdown would have no appreciable environmental effect. This decision was made following consultations with representatives from state agencies in the States of Colorado, New Mexico, Utah, Arizona, Nevada and California, and with representatives from several federal agencies, including the Environmental Protection Agency, National Park Service and the Bureau of Sport Fisheries and Wildlife.

(c) The original plans for the Navajo Generating Station called for cold precipitators for fly ash collection. Subsequent to January 1, 1970 a decision was made to install hot electrostatic precipitators because their collection efficiency is not affected by the sulfur content in the coal and it is anticipated that they will provide a higher degree of collection efficiency and be more reliable.

(d) The original plans for the Navajo Generating Station did not call for SO_2 removal systems. Subsequent to January 1, 1970 a decision was made to install SO_2 removal systems on all three units. This decision was made after extensive meteorological studies and after consultation with representatives from the Tennessee Valley Authority, United States Bureau of Reclamation, Environmental Protection Agency and the Arizona State Health Department.

(e) The original plans for the Navajo Generating Station did not contain any provision providing for flexibility in boiler combustion. Subsequent to January 1, 1970 a decision was made to modify the boilers to permit greater flexibility in combustion so as to provide an opportunity for reducing the formation of nitrogen oxides in the combustion process.

(f) The original plans for the Navajo Generating Station did contain provisions for dust abate-

ment. Since January 1, 1970 additional dust abatement facilities have been planned for installation at the Navajo Generating Station.

(g) Modifications have been made in the design of the Navajo Generating Station since January 1, 1970 to improve the appearance of the Generating Station. These include housing the turbine generators, using high intensity lights on the stacks rather than painting them red and white, and improved color treatment to better blend in with the surrounding area. All of these modifications have resulted in substantial increased costs. In addition, since January 1, 1970 a reassessment has been made of the environmental systems, both major and minor, and numerous improvements made in the minor environmental systems.

47. The participants in the Four Corners, San Juan, Mohave, Navajo and Huntington Canyon Plants requested that the meteorological consultants for these projects jointly assess the cumulative impact of these plants on air quality in the Colorado River Basin. The conclusions of that study were as follows:

(a) Based on the considerations of local winds, terrain effects and professional judgment, the Colorado Plateau region can be divided into specific "air sheds." The Four Corners and San Juan Plants are in the same air shed. Each of the other plants is in a separate air shed.

(b) Evidence indicates little significant meteorological interaction between these air sheds during stagnant conditions.

(c) Because each major effluent source is located within a different air shed, contaminants from each major source will not interact under stagnant conditions. (The Four Corners and San Juan power plants were considered as a single source for the purposes of this study.)

(d) During a postulated 23-day stagnation period (January 4-27, 1968), the area was ventilated three times. Even if extended periods of stagnation were to take place, the natural pollutant removal processes of the atmosphere would limit the buildup of contaminants.

(e) Meteorological studies indicate that stagnation may last as long as thirteen days in this area. However, each separate air shed should be evaluated further since the degree of stagnation, and its consequences, will vary among the different locales.

48. In 1971, the Hydraulics and Hydrology Group of Bechtel, Incorporated, researched and computed the effects of the San Juan, Four Corners, Navajo, Kaiparowits and Mohave thermal electric power plans on the water quality of the Colorado River.

The conclusions of this investigation were as follows:

(a) The net withdrawal of salts from the River by the five plants will be about 166,000 tons per year, under the assumption of a withdrawal of 208,000 acre feet per year.

(b) The withdrawal of water is in accordance with the Water Service Contracts executed between the United States and the respective utilities, the apportionment of water to the States of Utah, New Mexico and Arizona, and the Law of the River.

(c) As the usage of water in the Upper Basin is increased to develop fully the allocations to the respective states, it may be expected that the water presently released downstream in excess of contract requirements will be reduced. Consequently, there will be less surplus water available to dilute downstream return flows and other sources of salt concentration.

(d) Under present modified conditions the effect of the five power plants on salt concentrations at

Lee Ferry will be zero; below Hoover Dam, salinity will increase by 0.4 percent or 3 ppm. At Imperial Dam the projected increase will be about 7 ppm under the 1941-1966 present modified conditions or 10 ppm under projected future inflow conditions; against background salinities of 832 ppm and 869 ppm, respectively, these increments amount to 0.8 and 1.2 percent. It will be nearly if not entirely impossible to detect these increments with standard methods of chemical water quality analysis and instrumentation as used by the U.S. Geological Survey. Since the incremental salinity cannot be subjected to measurement, it seems clear that effects, economic or otherwise, will also be unmeasurable.

(e) Releases to Mexico will continue to be made in full accord with Treaty requirements. In addition, drainage wells and bypass drains have been constructed and reservoir operating procedures have been adopted to minimize salinity in the water crossing the International Boundaries. The effect of the diversions to the five power plants on the quality of water delivered to Mexico will, at worst, cause no more than about 1 percent increase in concentration, and may, in fact, cause a decrease in concentration.

(f) The only planned return of water to the River from the withdrawal will be from a "blowdown" from the Four Corners cooling pond. There will be no return of water or salt to the River from the other four plants.

(g) The salt removed from the blowdown water will be largely disposed of in impermeable ponds to prevent return seepage and upon completion of the plant operation the ponds will be buried to prevent blowing of dry salts over the area.

(h) The addition of the five large thermal electric power plants to the economic and indus-

trial structure of the Colorado River Basin is in full accord with the planned development of the water resources of the Basin. The plants will not create significant unforeseen problems of water availability or water quality.

49. The Secretary of the Interior has determined that, with the exception of the Four Corners and San Juan Plants, the cumulative environmental effect of the following described plants:

Plant	Unit No.	Size (MW)	Date of Oper.
Four Corners	1	175	'63
Four Corners	2	175	'63
Four Corners	3	225	'64
Four Corners	4	775	'69
Four Corners	5	775	'70
Mohave	1	755	'71
Mohave	2	755	'71
San Juan	1	330	'73
San Juan	2	330	'77
Navajo	1	750	'74
Navajo	2	750	'75
Navajo	3	750	'76
Huntington	1	430	'73
Huntington	2	430	'78

is not significant and that each of the above described plants can be treated as separate entities from an environmental standpoint and from the standpoint of the application of the Environmental Policy Act.

50. The Secretary of the Interior has made the following substantive decisions pertaining to the Navajo Project:

(a) The basic course of action calling for the timely completion of the Navajo Project was not subject to reassessment as of January 1, 1970.

(b) Certain incremental federal actions, as described in Section 11 of the Guidelines, had to be taken prior to the filing of the Final Environmental Statement.

(c) As of February 4, 1972, the Secretary had adequate information on the basis of which to prepare and file a Final Environmental Statement pertinent to the Navajo Project.

(d) As of February 4, 1972, the Department of the Interior had in all respects complied with the procedural requirements of the National Environmental Policy Act as they apply to the Navajo Project.

51. A draft environmental statement pertaining to all aspects of the Navajo Project was filed with the Council on Environmental Quality on October 5, 1971, following earlier filings made some four months prior thereto on individual aspects of the Navajo Project. Copies of the draft environmental statements were circulated to interested parties, as set forth more fully in the statement itself. The Final Navajo Environmental Statement was filed with the Council on Environmental Quality on February 4, 1972.

52. The Final Navajo Environmental Statement adequately performs the responsibility prescribed by the National Environmental Policy Act, including the analysis of the five factors required to be analyzed by that statute, assessing and evaluating alternates, and

sets forth relevant data to be considered by governmental decision-making authorities in taking major federal action having a significant effect on the environment.

53. The Department of the Interior made an independent assessment of the environmental and economic consequences of the Navajo Project and utilized and relied upon expert information from the Tennessee Valley Authority, the National Oceanic and Atmospheric Administration, and the Environmental Protection Agency, and independent studies made by consultants employed by the participants in the Navajo Project.

54. There are now pending before the Secretary of the Interior—and have been pending in excess of six months while the preparation of Section 102 statements has proceeded—applications for federal approvals necessary for the Navajo Project. Delay in making these approvals beyond about the middle of March would result in very substantial construction delays, which in turn would result in seriously jeopardizing the Navajo participants to complete the Navajo Project according to schedule and supply the power needs to their customers.

HUNTINGTON CANYON PROJECT

55. Utah Power & Light Company, Salt Lake City, Utah, is constructing an electrical generating station in Huntington Canyon, Utah, approximately 29 miles by road southwest of Price, Utah. The plant will utilize coal from an underground mine approximately 2½ miles from the station to be operated by Peabody Coal Company. A 430 mw unit is planned to be on the

line in 1974. The plant is located 235 miles northwest of the Four Corners Plant and 170 miles north of the Navajo Station site. Its site is primarily on state and privately owned lands, although the company was issued a Bureau of Land Management five-year temporary use permit on March 11, 1971, for approximately forty acres.

56. Planning for the project commenced in 1966 when the Power Company's ten-year load forecast showed that additional generating capacity would be required by the year 1974. Lead time from planning to operation of a new steam plant requires seven to eight years. A detailed study of nine sites located in Utah, Wyoming, and Idaho was made in 1967 and 1968. The study took into account basically seven factors, namely:

(a) Availability of fuel.

(b) Availability of water.

(c) Cost of plant and supporting facilities, including land, road and railroad access to site.

(d) Proximity of plant site to major load centers to minimize electrical transmission distances.

(e) Environmental impact of the plant and its associated facilities.

(f) Availability of labor to support the plant complex during both the construction and operating stages.

(g) Acceptance of the plant complex by the local community.

This study resulted in the choice of Huntington Canyon area as the optimum site for the generating plant.

57. The availability of coal and water were first investigated in 1967, and this investigation continued through the remainder of 1968. A letter of intent covering coal purchases was executed in September, 1969. Efforts were then pressed for preparation of plans for the plant, for the reservoir and for the transmission line.

58. Discussions for purchase of water stock from private companies were completed and a contract was signed in December, 1969. Acquisition of options for purchase of water from individual stockholders began in 1969. Application for a reservoir was filed in 1968 and site investigation and engineering were commenced in the fall of 1969. Negotiations were also started with interested governmental agencies for relocation of the Huntington Canyon highway.

59. Bids were invited for the turbo-generator and boiler, and a letter of intent to purchase the turbo-generator was issued August 17, 1969. Selection of an engineering firm was started in 1969. A weather study was commenced the same year.

60. The engineering contract was awarded to Stearns-Rogers on March 17, 1970, and the letter of intent to purchase the boiler was submitted. Design and engineering of the plant site, clearing, grubbing, and preparation of specifications for the procurement of major equipment were started. Weather studies were continued.

61. Planning for the construction of the transmission line also commenced in 1966 when the company's ten-year load forecast revealed that the company would not be able to meet its load requirements by 1974 without additional generation and transmission ca-

pacity. The first physical efforts to select a route from Camp Williams to the Huntington area were made by airplane in the winter of 1968. Early in 1969, negotiations with the United States Forest Service and the Bureau of Land Management commenced, looking toward the acquisition of approval for the line. Authorization to begin work on surveying and mapping was given to Engineering Enterprises on May 9, 1969, and a formal contract awarded July 26, 1969.

62. In November, 1969, BLM consulted Utah Power to ascertain the alignment of the proposed line in relation to public lands so that the impacts of the proposed project on the environment could be carefully evaluated.

63. A field review of the entire route of the proposed line in Utah was made by representatives of the Asst. Secretary for Water and Power, Bureau of Land Management, Bureau of Reclamation, Bureau of Indian Affairs, U.S. Forest Service, Utah Power & Light Company, the press (including the Salt Lake Tribune, Deseret News) and T.V. (including KSL-TV in Salt Lake City). Wide publicity was given by press and T.V. to the concern for the environment under the government's new environmental standards, and the opportunity for public comment on the proposal.

64. Based on detailed on-site examinations of the proposed route, BLM required several changes to preserve natural beauty, esthetic, historic, archeological, and other public values on BLM administered public lands. These changes were made prior to the filing of the formal application by Utah Power & Light Company on January 8, 1970.

65. No objections to the construction of the line were received by BLM and after careful consideration of the environmental aspects of the proposed project, together with Power Marketing Recommendations signed February 5, 1970, by the Assistant Secretary for Water and Power Development, the right-of-way was approved. The survey was 65% complete by January 1, 1970; design engineering was being completed; material requisitions were prepared, construction contracts had been prepared and bids received; right-of-way was being purchased and the bulk of material orders had been placed. The company received approval for a right-of-way over public lands from the Bureau of Land Management in February, 1970. The line was put into service on June 26, 1971. The total cost of the line and appurtenant facilities was approximately $26,800,000.

66. Delay of the construction of the company's first unit at Huntington Canyon, now scheduled for service in June, 1974, would render it impossible for the company to satisfy its load demands projected for 1974. The capability of this unit amounts to approximately one-third of the Utah system capability at that time. This generation cannot be replaced with a practical alternative in the less than three years remaining. A loss of generating capability of this relative magnitude would seriously jeopardize the reliability of service to customers.

67. The major impact from a moratorium on the first unit at Huntington Canyon to the Utah Power and Light Company would be:

(a) System reserve capability would change from a maximum of +15% to a—8% in 1974, and

sufficient capability would not remain to supply all the firm load. The resulting reliability and continuity of the service would be unacceptable to customers and would result in wide-spread damage.

(b) Considerable monetary loss would be suffered by the company, resulting from funds already expended and committed on the Huntington Canyon Project. It is estimated that one year's delay would result in an increased construction cost of approximately $6,000,000.

(c) Maintenance required on existing units would be curtailed since contemplated reserves would be wiped out. The already unacceptable reliability resulting from loss of the Huntington unit would further deteriorate.

68. As of January 1, 1970, it was not practicable to reassess the basic course of action with respect to the Huntington Canyon Project.

69. Federal action on the Huntington Canyon Project since January 1, 1970, has been shaped to minimize adverse environmental consequences.

70. A draft environmental impact statement prepared by the Bureau of Reclamation (Huntington Canyon Generating Station and Transmission Line, March, 1971) was sent to the Council on Environmental Quality and circulated for review and comment in April, 1971. A final statement has not yet been filed.

SAN JUAN PROJECT

71. The participants in this project are Tucson Gas & Electric Company ("Tucson") and Public Service Company of New Mexico ("New Mexico"). Two units are presently planned with a capacity of about

330 megawatts each. One unit is under construction with scheduled operation in 1973. No planned dates have been announced for operation of the other unit. The plant is to be constructed on non-Federal, non-Indian lands.

72. The growing demand for electricity and the need for additional generating facilities, together with the availability of low sulphur coal and water in the area, necessitated the decision to construct the San Juan coal-fired steam generating plant near Farmington, New Mexico.

73. On November 1, 1961, New Mexico acquired two (2) coal leases from the Bureau of Land Management covering 4,912 acres in San Juan County, New Mexico. On August 13, 1963, rights under a Bureau of Land Management coal lease, contiguous to the other lease, covering 1,800 acres in San Juan County, New Mexico, were acquired.

74. On March 22, 1968, Senate Joint Resolution 123, being Public Law 90-272, authorized a "water contract" between the United States and New Mexico which allowed the United States to release to New Mexico 20,200 acre feet of water annually from the Navajo Reservoir. The "water contract" was signed April 11, 1968, and clearly indicates that the proposed use of water was for thermal electric generation.

75. The "water contract" required New Mexico to install and operate equipment employing the most effective and acceptable equipment available under the technology known at the time of the design of the plant in order to minimize smoke, fly ash and dust in stack emissions. Designs and plans for the air pollution control equipment, stack and other plant features that

might affect air pollution were subject to written approval by the Secretary of Interior or his designated agent in advance of construction, installation, removal or major modification. Periodic review of the equipment by the Secretary was included in the contract and disputes were made the subject of arbitration.

76. Because of the necessity of substantial lead time, a turbine generator was the subject of a letter of intent from New Mexico to Westinghouse Corporation dated October 11, 1967. This letter was modified on December 10, 1968.

77. As of July 25, 1969, Tucson had agreed to participate in the proposed generating station on an equal basis with New Mexico.

78. On August 1, 1969, a firm order was placed for the steam turbine generator at a price of approximately $6,500,000. By letter of October 20, 1969, Stearns-Rogers Corporation was selected to engineer and construct the first unit at the San Juan station. On November 17, 1969, New Mexico committed itself to purchase the boiler for the San Juan generation station at a cost of approximately $9,000,000.

79. On January 1, 1970, the San Juan Plant was an existing project or program and as of that date it was not practicable to reassess the basic decision that the project be constructed.

80. On April 1, 1970, the Bureau of Land Management approved modification of a 1961 mining lease by increasing the lease by 120 acres, which land was contiguous to the existing leases and did not consist of an area large enough for independent development. Such lands would have been isolated if not included within said lease.

81. The Department of Interior selected the Tennessee Valley Authority to examine the air pollution control devices proposed to be installed at the San Juan Plant. After that study and consultation with the National Air Pollution Control Administration, the United States Department of Health, Education and Welfare, and the New Mexico Department of Public Health and Social Services, the Secretary of Interior's designated agent approved the design of the air pollution control equipment by letter dated October 21, 1970, in accord with the approval rights in the contract of April 11, 1968. Because of the need for substantial lead time in ordering the air pollution control equipment, it was necessary to issue the approval at the time it was done. The approval was shaped so as to minimize adverse environmental consequences. It requires that particulate emissions are not to exceed 0.05 pounds per million Btu heat input. The equipment ordered is guaranteed by the manufacturer to remove 99.5% of the particulate matter. The guarantee is well over the water contract minimum level.

82. Federal action since January 1, 1970, has been shaped to minimize adverse environmental consesequences.

83. A statement in accord with Section 102(2)(C) of the National Environmental Policy Act with regard to the San Juan Project is now being prepared.

KAIPAROWITS PROJECT

84. The Kaiparowits Project consists of interests under coal mineral leases relating to lands on the Kaiparowits Plateau in Kane County, Utah, water appropriation and water service rights, and interests in

applications for rights-of-way and plant sites, which are jointly owned in equal undivided interests by the corporations named below, with the objectives of:

(a) Establishing procedures and principles for the initiation of specific projects for the production and utilization of recoverable coal, water supply and plant sites, and

(b) Establishing methods of development of the coal reserve area in an orderly manner with the utilization of coal resources for electric generation or for other uses to be agreed upon by the three participants named below.

85. The Kaiparowits Project is a resource development project as distinguished from a project for the construction of a power generating plant. There are no existing agreements or obligations with respect to constructing a power generating plant or any other facilities for utilization of the coal and water. No federal action has been taken with respect to this project since January 1, 1970.

86. The ownership interests in the Kaiparowits Project are as follows:

Resources Company, a subsidiary of Arizona Public Service Company 33⅓%.

Mono Power Company and/or Associated Southern Investment Company, subsidiaries of Southern California Edison Company 33⅓%.

New Albion Resources Company, a subsidiary of San Diego Gas & Electric Company 33⅓%.

87. In October, 1969, the owners executed a water service contract to take 102,000 acre feet annually from Lake Powell. This contract contains air and water

pollution control provisions similar to those contained in the contracts for the Navajo plant and the other plants.

88. The owners received coal leases from the Bureau of Land Management in November, 1965.

89. An environmental impact statement has not been prepared with respect to federal actions to date on the Kaiparowits Project.

THE SOUTHWEST ENERGY STUDY

90. To meet confirmed power needs in the Southwestern United States, there now are five coal-fired generating plants distributed over a wide area with units in service or with units under construction and to be completed by 1977. These plants and their anticipated 1977 operating capacities are as follows:

Plants	No. of Units	Generating Capacity-mw	Units Completed
Four Corners	5	2,162	5
Mohave	2	1,580	2
San Juan	2	690	—
Huntington Canyon	1	430	—
Navajo	3	2,310	—
Totals	13	7,172	7

91. There is no feasible way to substitute other power generating resources for these five power plants so that the concerned utilities will be able to meet their load responsibilities through 1977. Contributing considerations include engineering lead time required for design and construction of power systems and the problems of capital accumulation. Already, $1.8 billion

has been spent or commited for the construction of these power plants, including transmission lines, coal mines, and associated facilities.

92. The Southwest Energy Study does not deal with the need for the five power plants described above. The existence and production of those plants are basic underlying assumptions for the study. The study is primarily concerned with future proposed electric production and distribution facilities, *i.e.*, new areas and new projects that are not under construction.

ITEM 3

TABLE OF OWNERSHIP OF POWER PLANTS

Ownership of Power Plants

Plant	*Owner*	*Percentage*
Mohave		
	Southern California Edison Company	56
	Nevada Power Company	14
	Department of Water & Power, City of Los Angeles	20
	Salt River Project Agricultural Improvement & Power District	10
Navajo		
	United States of America	24.3
	Salt River Project Agricultural Improvement & Power District	21.7
	Arizona Public Service Company	14
	Tucson Gas & Electric Company	7.5
	Nevada Power Company	11.3
	Department of Water & Power, City of Los Angeles	21.2
Kaiparowits		
	Arizona Public Service Company	18
	Southern California Edison Company	40
	San Diego Gas & Electric Company	23.4
	Salt River Project Agricultural Improvement & Power District	10
	Unassigned	8.6
Huntington		
	Utah Power & Light Company	100
San Juan		
	Tucson Gas & Electric Company	50
	Public Service Company of New Mexico	50
Four Corners		
First 3 units	Arizona Public Service Company	100
Units 4 & 5	Arizona Public Service Company	15
	El Paso Electric Company	7
	Public Service Company of New Mexico	13
	Salt River Project Agricultural Improvement & Power District	10
	Southern California Edison Company	48
	Tucson Gas & Electric Company	7

OVERSIZE FOLDOUT(S) FOUND HERE IN THE PRINTED EDITION OF THIS VOLUME ARE FOUND FOLLOWING THE LAST PAGE OF TEXT IN THIS MICROFICHE EDITION